

## ClustalW Formatted Alignments

SEQ ID 1	M A F Y S C C W V L L A L T W H T S A Y G P D Q R
SEQ ID 2	M L L L L L L A P L F L R P P G A G G A Q T P N A
SEQ ID 3	M G P G A P F A R V G W P L P L L V V M A A G V A
SEQ ID 4	M A S P R S S G Q P G P X P P P P P P A R L L L
SEQ ID 5	M V C E G K R S A S C P C F F L L T A K F Y W I L

<i>SEQ ID 1</i>	A	Q	K	K	G	D	I	I	L	G	G	L	F	P	I	H	F	G	V	A	A	K	D	Q	D
<i>SEQ ID 2</i>	T	S	E	G	C	Q	I	I	H	P	P	W	E	G	G	I	R	Y	R	G	L	T	R	D	Q
<i>SEQ ID 3</i>	P	V	W	A	S	H	S	P	H	L	P	R	P	H	S	R	V	P	P	H	P	S	S	E	R
<i>SEQ ID 4</i>	L	L	L	L	P	L	L	L	P	L	A	P	G	A	W	G	W	A	R	G	A	P	R	P	P
<i>SEQ ID 5</i>	T	M	M	Q	R	T	H	S	Q	E	Y	A	H	S	I	R	V	D	G	D	I	I	L	G	G

SEQ ID 1	L	K	S	R	P	E	S	V	E	C	I	R	Y	N	F	R	G	F	R	W	L	Q	A	M	I
SEQ ID 2	V	K	A	I	N	F	L	P	V	D	Y	E	I	E	Y	V	C	R	G	E	R	E	V	V	G
SEQ ID 3	R	A	V	Y	I	G	A	L	F	P	M	S	G	G	W	P	G	G	Q	A	C	Q	P	A	V
SEQ ID 4	P	S	S	P	P	L	S	I	M	G	L	M	P	L	T	K	E	V	A	K	G	S	I	G	R
SEQ ID 5	L	F	P	V	H	A	K	G	E	R	G	V	P	C	G	E	L	K	K	E	K	G	I	H	R

SEQ ID 1	F A I E E I N S S P A L L P N L T L G Y R I F D T
SEQ ID 2	P K V R K C L A N G S W T D M D T P S R C V R I C
SEQ ID 3	E M A L E D V N S R R D I L P D Y E L K L I H H D
SEQ ID 4	G V L P A V E L A I E Q I R N E S L L R P Y F L D
SEQ ID 5	L E A M L Y A I D Q I N K D P D L L S N I T L G V

*SEQ ID 1* C N T V S K A L E A T L S F V A Q N K I D S L N L  
*SEQ ID 2* S K S Y L T L E N G K V F L T G G D L P A L D G A  
*SEQ ID 3* S K C D P G Q A T K Y L Y E L L Y N D P I K I I L  
*SEQ ID 4* L R L Y D T E C D N A K G L K A F Y D A I K Y G P  
*SEQ ID 5* R I L D T C S R D T Y A L E Q S L T F V Q A L I E

SEQ ID 1	D	E	F	C	N	C	S	E	H	I	P	S	T	I	A	V	V	G	A	T	G	S	G	V	S
SEQ ID 2	R	V	D	F	R	C	D	P	D	F	H	L	V	G	S	S	R	S	I	C	S	Q	G	Q	W
SEQ ID 3	M	P	G	C	S	S	V	S	T	L	V	A	E	A	A	R	M	W	N	L	I	V	L	S	Y
SEQ ID 4	N	H	L	M	V	F	G	G	V	C	P	S	V	T	S	I	I	A	E	S	L	Q	G	W	N
SEQ ID 5	K	D	A	S	D	V	K	C	A	N	G	D	P	P	I	F	T	K	P	D	K	I	S	G	V

SEQ ID 1	T	A	V	A	N	L	L	G	L	F	Y	I	P	Q	V	S	Y	A	S	S	S	R	L	L	S
SEQ ID 2	S	T	P	K	P	H	C	Q	V	N	R	T	P	H	S	E	R	R	A	V	Y	I	G	A	L
SEQ ID 3	G	S	S	S	P	A	L	S	N	R	Q	R	F	P	T	F	F	R	T	H	P	S	A	T	L
SEQ ID 4	L	V	Q	L	S	F	A	A	T	T	P	V	L	A	D	K	K	K	Y	P	Y	F	F	R	T
SEQ ID 5	I	G	A	A	A	S	S	V	S	I	M	V	A	N	I	L	R	L	F	K	I	P	Q	I	S

Figure 1a

SEQ ID 1 NKNQFKSFLRTIPNDEHQATAMADI  
 SEQ ID 2 FPMSSGGWPGGQACQPAVEMALEDVN  
 SEQ ID 3 HNPTRVKLF EKWGWKKIATIQQTTTE  
 SEQ ID 4 VPSDNAVNPAILKLLKHYQWKRVTGT  
 SEQ ID 5 YASTAPELSDNTRYDFFSRVVP PDS

SEQ ID 1 IEYFRWNWVG TIAADDDYGRPGIEK  
 SEQ ID 2 SRRDILPDYELKLIHHDSKCDPGQA  
 SEQ ID 3 VFTSTLDDLEERVKEAGIEITFRQS  
 SEQ ID 4 LTQDVQRFSEVRNDLTGVLYGEDIE  
 SEQ ID 5 YQAQAMVDIVTALGWNYVSTLASEG

SEQ ID 1 FREEAEERDICI DFSELISQYSDEE  
 SEQ ID 2 TKYLYELLYNDPIKILMPGCSSVS  
 SEQ ID 3 FFSDPAVPVKNLKRQDARIIVGLFY  
 SEQ ID 4 ISDTESSFSNDPCTSVKKLKGNDVRI  
 SEQ ID 5 NYGESGVEAFTQISREIGGVCIAQS

SEQ ID 1 EIQHVVEVIQNSTAKVIVVFS SGP D  
 SEQ ID 2 TLVAEAAARMWNLIVLSYGSSSPALS  
 SEQ ID 3 ETEARKVFCEVYKERLFGKKYVWFL  
 SEQ ID 4 ILGQFDQNMAAKV FCCAYEENMYGS  
 SEQ ID 5 QKIPREPRPGEF EKIKRLLBTPNA

SEQ ID 1 LEPLIKEIVRRNITGKIWLASEAWA  
 SEQ ID 2 NRQRFPTFFRTHPSATLHNPTRVKL  
 SEQ ID 3 IGWYADNWFKIYDPSINCTVDEMTE  
 SEQ ID 4 KYQWIIIPGWYEPSWWEQVHTEANSS  
 SEQ ID 5 RAVIMFANEDDIRRILEAAKKLNQS

SEQ ID 1 SSSLIAMPPQYFHVVG GTIGFALKAG  
 SEQ ID 2 FEKWWGWKKIATIQQTTTEVFTSTLDD  
 SEQ ID 3 AVEGHITTEIVMLNPANTRSI SNMT  
 SEQ ID 4 RCLRKNNLLAAMEGYIGVDFEPLSSK  
 SEQ ID 5 GHFLWIGSDSWGSK IAPVYQQEEIA

SEQ ID 1 QIPGFRBFLKKVHPRKSVHNGFAKE  
 SEQ ID 2 LEERVKEAGIEITFRQSSFFSDPAVP  
 SEQ ID 3 SQEFVEKLT KRRLKRHP EETGGFQEA  
 SEQ ID 4 QIKTISGKTPQQYER EYNNKRSGVG  
 SEQ ID 5 EGAVTILPKRASIDGFDRYFRSRTL

Figure 1b

SEQ ID 1 F W E E T F N C H L Q E G A K G P L P V D T F L R  
 SEQ ID 2 V K N L K R Q D A R I I V G L F Y E T E A R K V F  
 SEQ ID 3 P L A Y D A I W A L A L A L N K T S G G G G R S G  
 SEQ ID 4 P S K F H G Y A Y D G I W V I A K T L Q R A M E T  
 SEQ ID 5 A N N R R N V W F A E F W E E N F G C K L G S H G

SEQ ID 1 G H E E S G D R F S N S S T A F R P L C T G D E N  
 SEQ ID 2 C E V Y K E R L F G K K Y V W F L I G W Y A D N W  
 SEQ ID 3 V R L E D F N Y N N Q T I T D Q I Y R A M N S S S  
 SEQ ID 4 L H A S S R H Q R I Q D F N Y T D H T L G R I I L  
 SEQ ID 5 K R N S H I K K C T G L E R I A R D S S Y E Q E G

SEQ ID 1 I S S V E T P Y I D Y T H L R I S Y N V Y L A V Y  
 SEQ ID 2 F K I Y D P S I N C T V D E M T E A V E G H I T T  
 SEQ ID 3 F E G V S G H V V F D A S G S R M A W T L I E Q L  
 SEQ ID 4 N A M N E T N F F G V T G Q V V F R N G E R M G T  
 SEQ ID 5 K V Q F V I D A V Y S M A Y A L H N M H K D L C P

SEQ ID 1 S I A H A L Q D I Y T C L P G R G L F T N G S C A  
 SEQ ID 2 B I V M L N P A N T R S I S N M T S Q E F V E K L  
 SEQ ID 3 Q G G S Y K K I G Y Y D S T K D D L S W S K T D K  
 SEQ ID 4 I K F T Q F Q D S R E V K V G E Y N A V A D T L E  
 SEQ ID 5 G Y I G L C P R M S T I D G K E L L G Y I R A V N

SEQ ID 1 D I K K V E A W Q V L K H L R H L N F T N N M G E  
 SEQ ID 2 T K R L K R H P E E T G G F Q E A P L A Y D A I W  
 SEQ ID 3 W I G G S P P A D Q T L V I K T F R F L S Q K  
 SEQ ID 4 I I N D T I R F Q G S E P P K D K T I I L E Q L R  
 SEQ ID 5 F N G S A G T P V T F N E N G D A P G R Y D I F Q

SEQ ID 1 Q V T F D E C G D L V G N Y S I I N W H L S P E D  
 SEQ ID 2 A L A L A L N K T S G G G G R S G V R L E D F N Y  
 SEQ ID 3  
 SEQ ID 4 K I S L P  
 SEQ ID 5 Y Q I T N K S T E Y K V I G H W T N Q L H L K V E

SEQ ID 1 G S I V F K E V G Y Y N V Y A K K G E R L F I N E  
 SEQ ID 2 N N Q T I T D Q I Y R A M N S S S F E G V S G H V  
 SEQ ID 3  
 SEQ ID 4  
 SEQ ID 5 D M Q W A H R E H T H P A S V C S L P C K P G E R

Figure 1c

SEQ ID 1 E K I L W S G F S R E V P F S N C S R D C L A G T  
SEQ ID 2 V F D A S G S R M A W T L I E Q L Q G G S Y K K I  
SEQ ID 3  
SEQ ID 4  
SEQ ID 5 K K T V K G V P C C W H C E R C E G Y N Y Q V D E

SEQ ID 1 R K G I I E G E P T C C F E C V E C P D G E Y S D  
SEQ ID 2 G Y Y D S T K D D L S W S K T D K W I G G S P P A  
SEQ ID 3  
SEQ ID 4  
SEQ ID 5 L S C E L C P L D Q R P N M N R T G C Q L I P I I

SEQ ID 1 E T D A S A C N K C P D D F W S N E N H T S C I A  
SEQ ID 2 D Q T L V I K T F R F L S Q K  
SEQ ID 3  
SEQ ID 4  
SEQ ID 5 K L E W H S P W

SEQ ID 1 K E I E F L S W T E P F  
SEQ ID 2  
SEQ ID 3  
SEQ ID 4  
SEQ ID 5

Figure 1d

FIGURE 2a

SEQ ID 6 G I A L T L F A V L G I F L T A F V L G V F I K F R N T P I  
 SEQ ID 7 L F I S V S V L S S L G I V L A V V C L S F N I Y N S H V R  
 SEQ ID 8 L F I S V S V L S S L G I V L A V V C L S F N I Y N S H V R  
 SEQ ID 9 L Y S I L S A L T I L G M I M A S A F L F F N I K N R N Q K  
 SEQ ID 10 A V V P V F V A I L G I I A T T F V I V T F V R Y N D T P I

SEQ ID 6 V K A T N R E L S Y L L L F S L L C C F S S S L F F I G E P  
 SEQ ID 7 Y I Q N S Q P N L N N L T A V G C S L A L A A V F P L G L D  
 SEQ ID 8 Y I Q N S Q P N L N N L T A V G C S L A L A A V F P L G L D  
 SEQ ID 9 L I K M S S P Y M N N L I I L G G M L S Y A S I F L F G L D  
 SEQ ID 10 V R A S G R E L S Y V L L T G I F L C Y S I T F L M I A A P

SEQ ID 6 Q D W T C R L R Q P A F G I S F V L C I S C I L V K T N R V  
 SEQ ID 7 G Y H I G R N Q F P F V C Q A R L W L L G L G F S L G Y G S  
 SEQ ID 8 G Y H I G R N Q F P F V C Q A R L W L L G L G F S L G Y G S  
 SEQ ID 9 G S F V S E K T F E T L C T V R T W I L T V G Y T T A F G A  
 SEQ ID 10 D T I I C S F R R V F L G L G M C F S Y A A L L T K T N R I

SEQ ID 6 L L V F E A K I P T S F H R K W W G L N L Q F L L V F L C T  
 SEQ ID 7 M F T K I W W V H T V F T K K E E K K E W R K T L E P W K L  
 SEQ ID 8 M F T K I W W V H T V F T K K E E K K E W R K T L E P W K L  
 SEQ ID 9 M F A K T W R V H A I F K N V K M K K K I I K D Q K L L V I  
 SEQ ID 10 H R I F E Q G K K S V T A P K F I S P A S Q L V I T F S L I

SEQ ID 6 F M Q I V I C V I W L Y T A P P S S Y R N Q E L E D E I I F  
 SEQ ID 7 Y A T V G L L V G M D V L T L A I W Q I V D P L H R T I E T  
 SEQ ID 8 Y A T V G L L V G M D V L T L A I W Q I V D P L H R T I E T  
 SEQ ID 9 V G G M L L I D L C I L I C W Q A V D P L R R T V E K Y S M  
 SEQ ID 10 S V Q L L G V F V W F V V D P P H I I I D Y G E Q R T L D P

SEQ ID 6 I T C H E G S L M A L G F L I G Y T C L L A A I C F F F A F  
 SEQ ID 7 F A K E E P K E D I D V S I L P Q L E H C S S R K M N T W L  
 SEQ ID 8 F A K E E P K E D I D V S I L P Q L E H C S S R K M N T W L  
 SEQ ID 9 E P D P A G R D I S I R P L L E H C E N T H M T I W L G I V  
 SEQ ID 10 E K A R G V L K C D I S D L S L I C S L G Y S I L L M V T C

SEQ ID 6 K S R K L P E N F N E A K F I T F S M L I F F I V W I S F I  
 SEQ ID 7 G I F Y G Y K G L L L L L G I F L A Y E T K S V S T E K I N  
 SEQ ID 8 G I F Y G Y K G L L L L L G I F L A Y E T K S V S T E K I N  
 SEQ ID 9 Y A Y K G L L M L F G C F L A W E T R N V S I P A L N D S K  
 SEQ ID 10 T V Y A I K T R G V P E T F N E A K P I G F T M Y T T C I I

FIGURE 2L

SEQ ID 6 P A Y A S T Y G K F V S A V E V I A I L A A S F G L L A C I  
SEQ ID 7 D H R A V G M A I Y N V A V L C L I T A P V T M I L S S Q Q  
SEQ ID 8 D H R A V G M A I Y N V A V L C L I T A P V T M I L S S Q Q  
SEQ ID 9 Y I G M S V Y N V G I M C I I G A A V S F L T R D Q P N V Q  
SEQ ID 10 W L A F I P I F F G T A Q S A E K M Y I Q T T T L T V S M S

SEQ ID 6 F F N K I Y I I L F  
SEQ ID 7 D A A F A F A S L A I V F S S Y I T L V V L F V P K M  
SEQ ID 8 D A A F A F A S L A I V F S S Y I T L V V L F V P K M  
SEQ ID 9 F C I V A L V I I F C S T I T L C L V F V P K L  
SEQ ID 10 L S A S V S L G M L Y M P K V Y I I I F

FIGURE 3a

SEQ ID 11 K P S R N T I E E V R C S T A A H A F K V A A R A T L R R S  
 SEQ ID 12 R R L I T R G E W Q S E A Q D T M K T G S S T N N N E E E K  
 SEQ ID 13 R R L I T R G E W Q S E A Q D T M K T G S S T N N N E E E K  
 SEQ ID 14 I T L R T N P D A A T Q N R R F Q F T Q N Q K K E D S K T S  
 SEQ ID 15 H P E Q N V Q K R K R S F K A V V T A A T M Q S K L I Q K G

SEQ ID 11 N V S R K R S S S L G G S T G S T P S S S I S S K S N S E D  
 SEQ ID 12 S R L L E K E N R E L E K I I A E K E E R V S E L R H Q L Q  
 SEQ ID 13 S R L L E K E N R E L E K I I A E K E E R V S E L R H Q L Q  
 SEQ ID 14 T S V T S V N Q A S T S R L E G L Q S E N H R L R M K I T E  
 SEQ ID 15 N D R P N G E V K S E L C E S L E T N S K S S V E F P M V K

SEQ ID 11 P F P Q P E R Q K Q Q Q P L A L T Q Q E Q Q Q Q P L T L P Q  
 SEQ ID 12 S R Q Q L R S R R H P P T P P E P S G G L P R G P P E P P D  
 SEQ ID 13 S R Q Q L R S R R H P P T P P E P S G G L P R G P P E P P D  
 SEQ ID 14 L D K D L E E V T M Q L Q D T P E K T T Y I K Q N H Y Q E L  
 SEQ ID 15 S G S T S

SEQ ID 11 Q Q R S Q Q Q P R C K Q K V I F G S G T V T F S L S F D E P  
 SEQ ID 12 R L S C D G S R V H L L Y K  
 SEQ ID 13 R L S C D G S R V H L L Y K  
 SEQ ID 14 N D I L N L G N F T E S T D G G K A I L K N H L D Q N P Q L  
 SEQ ID 15

SEQ ID 11 Q K N A M A H G N S T H Q N S L E A Q K S S D T L T R H Q P  
 SEQ ID 12  
 SEQ ID 13  
 SEQ ID 14 Q W N T T E P S R T C K D P I E D I N S P E H I Q R R L S L  
 SEQ ID 15

SEQ ID 11 L L P L Q C G E T D L D L T V Q E T G L Q G P V G G D Q R P  
 SEQ ID 12  
 SEQ ID 13  
 SEQ ID 14 Q L P I L H H A Y L P S I G G V D A S C V S P C V S P T A S  
 SEQ ID 15

SEQ ID 11 E V E D P E E L S P A L V V S S S Q S F V I S G G G S T V T  
 SEQ ID 12  
 SEQ ID 13  
 SEQ ID 14 P R H R H V P P S F R V M V S G L  
 SEQ ID 15

FIGURE 3.

SEQ ID 11 E N V V N S

SEQ ID 12

SEQ ID 13

SEQ ID 14

SEQ ID 15



FIGURE 4a

SEQ. ID. NO. 16 M A R S L T W G C C P W C L T E E E K T A A R I D Q E I N R  
SEQ. ID. NO. 17 M A R S L T W R C C P W C L T E D E K A A A R V D Q E I N R

SEQ. ID. NO. 16 I L L E Q K K Q E R E E L K L L L L G P G E S G K S T F I K  
SEQ. ID. NO. 17 I L L E Q K K Q D R G E L K L L L L G P G E S G K S T F I K

SEQ. ID. NO. 16 Q M R I I H G V G Y S E E D R R A F R L L I Y Q N I F V S M  
SEQ. ID. NO. 17 Q M R I I H G A G Y S E E E R K G F R P L V Y Q N I F V S M

SEQ. ID. NO. 16 Q A M I D A M D R L Q I P F S R P D S K Q H A S L V M T Q D  
SEQ. ID. NO. 17 R A M I E A M E R L Q I P F S R P E S K H H A S L V M S Q D

SEQ. ID. NO. 16 P Y K V S T F E K P Y A V A M Q Y L W R D A G I R A C Y E R  
SEQ. ID. NO. 17 P Y K V T T F E K R Y A A A M Q W L W R D A G I R A C Y E R

SEQ. ID. NO. 16 R R E F H L L D S A V Y Y L S H L E R I S E D S Y I P T A Q  
SEQ. ID. NO. 17 R R E F H L L D S A V Y Y L S H L E R I T E E G Y V P T A Q

SEQ. ID. NO. 16 D V L R S R M P T T G I N E Y C F S V K K T K L R I V D V G  
SEQ. ID. NO. 17 D V L R S R M P T T G I N E Y C F S V Q K T N L R I V D V G

SEQ. ID. NO. 16 G Q R S E R R K W I H C F E N V I A L I Y L A S L S E Y D Q  
SEQ. ID. NO. 17 G Q K S E R K K W I H C F E N V I A L I Y L A S L S E Y D Q

SEQ. ID. NO. 16 C L E E N D Q E N R M E E S L A L F S T I L E L P W F K S T  
SEQ. ID. NO. 17 C L E E N N Q E N R M K E S L A L F G T I L E L P W F K S T

SEQ. ID. NO. 16 S V I L F L N K T D I L E D K I H T S H L A T Y F P S F Q G  
SEQ. ID. NO. 17 S V I L F L N K T D I L E E K I P T S H L A T Y F P S F Q G

SEQ. ID. NO. 16 P R R D A E A A K S F I L D M Y A R V Y A S C A E P Q D G G  
SEQ. ID. NO. 17 P K Q D A E A A K R F I L D M Y T R M Y T G C V D G P E G S

SEQ. ID. NO. 16 R K G S R A R R F F A H F T C A T D T Q S V R S V F K D V R  
SEQ. ID. NO. 17 K K G A R S R R L F S H Y T C A T D T Q N I R K V F K D V R

FIGURE 4b

SEQ. ID. NO. 16 D S V L A R Y L D E I N L L  
SEQ. ID. NO. 17 D S V L A R Y L D E I N L L

# ClustalW Formatted Alignments

SEQ. ID. NO. 18 A T G G C A T T T T A T A G C T G C T G C T G G G  
 SEQ. ID. NO. 19 A T G T T G C T G C T G C T A C T G G C G C  
 SEQ. ID. NO. 20 A T G G G G C C C G G G G C C C C T T T T G C C C  
 SEQ. ID. NO. 21 A T G G C T T C C C C G C G G A G C T C C G G G C

SEQ. ID. NO. 18 T C C T C T T G G C A C T C A C C T G G C A C A C  
 SEQ. ID. NO. 19 C A C T C T T C C T C C G C C C C C G G G C G C  
 SEQ. ID. NO. 20 G G G T G G G G T G G C C A C T G C C G C T T C T  
 SEQ. ID. NO. 21 A G C C C G G G C C G C - G C C G C C G C C G C C

SEQ. ID. NO. 18 C T C T G C C T A C G G G C C A G A C C A G C G A  
 SEQ. ID. NO. 19 G G G C G G G G C G C A G A C C C C A A C G C C  
 SEQ. ID. NO. 20 G G T T G T G A T G G C G G C A G G G G T G G C T  
 SEQ. ID. NO. 21 A C C G C C G C C C G C G C G C C T G C T A C T G

SEQ. ID. NO. 18 G C C C A A A A G A A G G G G G A C A T T A T C C  
 SEQ. ID. NO. 19 A C C T C A G A A G G T T G C C A G A T C A T A C  
 SEQ. ID. NO. 20 C C G G T G T G G G C C T C C C A C T C C C C C C  
 SEQ. ID. NO. 21 C T A C T G C T G C T G C C G C T G C T G C T G C

SEQ. ID. NO. 18 T T G G G G G G C T C T T T C C T A T T C A T T T  
 SEQ. ID. NO. 19 A C C C G C C C T G G G A A G G G G G C A T C A G  
 SEQ. ID. NO. 20 A T C T C C C G C G G C C T C A C T C G C G G G T  
 SEQ. ID. NO. 21 C T C T G G C G C C C G G G G C C T G G G G C T G

SEQ. ID. NO. 18 T G G A G T A G C A G C T A A A G A T C A A G A T  
 SEQ. ID. NO. 19 G T A C C G G G G C C T G A C T C G G G A C C A G  
 SEQ. ID. NO. 20 C C C C C G C A C C C C T C C T C A G A A C G G  
 SEQ. ID. NO. 21 G G C G C G G G G C G C C C C C C G G C C G C C G

SEQ. ID. NO. 18 C T C A A A T C A A G G C C G G A G T C T G T G G  
 SEQ. ID. NO. 19 G T G A A G G C T A T C A A C T T C C T G C C A G  
 SEQ. ID. NO. 20 C G C G C A G T G T A C A T C G G G G C A C T G T  
 SEQ. ID. NO. 21 C C C A G C A G C C C G C C G C T C T C C A T C A

SEQ. ID. NO. 18 A A T G T A T C A G G T A T A A T T T C C G T G G  
 SEQ. ID. NO. 19 T G G A C T A T G A G A T T G A G T A T G T G T G  
 SEQ. ID. NO. 20 T T C C C A T G A G C G G G G G C T G G C C A G G  
 SEQ. ID. NO. 21 T G G G C C T C A T G C C G C T C A C C A A G G A

Figure 5a

SEQ. ID. NO. 18 G T T T C G C T G G T T A C A G G C T A T G A T A  
 SEQ. ID. NO. 19 C C G G G G G G A G C G C G A G G T G G T G G G G  
 SEQ. ID. NO. 20 G G G C C A G G C C T G C C A G C C C G C G G T G  
 SEQ. ID. NO. 21 G G T G G C C A A G G G C A G C A T C G G G C G C

SEQ. ID. NO. 18 T T T G C C A T A G A G G A G A T A A A C A G C A  
 SEQ. ID. NO. 19 C C C A A G G T C C G C A A G T G C C T G G C C A  
 SEQ. ID. NO. 20 G A G A T G G C G C T G G A G G A C G T G A A T A  
 SEQ. ID. NO. 21 G G T G T G C T C C C C G C C G T G G A A C T G G

SEQ. ID. NO. 18 G C C C A G C C C T T C T T C C C A A C T T G A C  
 SEQ. ID. NO. 19 A C G G C T C C T G G A C A G A T A T G G A C A C  
 SEQ. ID. NO. 20 G C C G C A G G G A C A T C C T G C C G G A C T A  
 SEQ. ID. NO. 21 C C A T C G A G C A G A T C C G C A A C G A G T C

SEQ. ID. NO. 18 G C T G G G A T A C A G G A T A T T T G A C A C T  
 SEQ. ID. NO. 19 A C C C A G C C G C T G T G T C C G A A T C T G C  
 SEQ. ID. NO. 20 T G A G C T C A A G C T C A T C C A C C A C G A C  
 SEQ. ID. NO. 21 A C T C C T G C G C C C C T A C T T C C T C G A C

SEQ. ID. NO. 18 T G C A A C A C C G T T T C T A A G G C C T T G G  
 SEQ. ID. NO. 19 T C C A A G T C T T A T T T G A C C C T G G A A A  
 SEQ. ID. NO. 20 A G C A A G T G T G A T C C A G G C C A A G C C A  
 SEQ. ID. NO. 21 C T G C G G C T C T A T G A C A C G G A G T G C G

SEQ. ID. NO. 18 A A G C C A C C C T G A G T T T T G T T G C T C A  
 SEQ. ID. NO. 19 A T G G G A A G G T T T T C C T G A C G G G T G G  
 SEQ. ID. NO. 20 C C A A G T A C C T A T A T G A G C T G C T C T A  
 SEQ. ID. NO. 21 A C A A C G C A A A A G G G T T G A A A G C C T T

SEQ. ID. NO. 18 A A A C A A A A T T G A T T C T T T G A A C C T T  
 SEQ. ID. NO. 19 G G A C C T C C C A G C T C T G G A C G G A G C C  
 SEQ. ID. NO. 20 C A A C G A C C C T A T C A A G A T C A T C C T T  
 SEQ. ID. NO. 21 C T A C G A T G C A A T A A A A T A C G G G C C G

SEQ. ID. NO. 18 G A T G A G T T C T G C A A C T G C T C A G A G C  
 SEQ. ID. NO. 19 C G G G T G G A T T T C C G G T G T G A C C C C G  
 SEQ. ID. NO. 20 A T G C C T G G C T G C A G C T C T G T C T C C A  
 SEQ. ID. NO. 21 A A C C A C T T G A T G G T G T T T G G A G G C G

Figure 5b

SEQ. ID. NO. 18 A C A T T C C C T C T A C G A T T G C T G T G G T  
 SEQ. ID. NO. 19 A C T T C C A T C T G G T G G G C A G C T C C C G  
 SEQ. ID. NO. 20 C G C T G G T G G C T G A G G C T G C T A G G A T  
 SEQ. ID. NO. 21 T C T G T C C A T C C G T C A C A T C C A T C A T

SEQ. ID. NO. 18 G G G A G C A A C T G G C T C A G G C G T C T C C  
 SEQ. ID. NO. 19 G A G C A T C T G T A G T C A G G G C C A G T G G  
 SEQ. ID. NO. 20 G T G G A A C C T C A T T G T G C T T T C C T A T  
 SEQ. ID. NO. 21 T G C A G A G T C C C T C C A A G G C T G G A A T

SEQ. ID. NO. 18 A C G G C A G T G G C A A A T C T G C T G G G G C  
 SEQ. ID. NO. 19 A G C A C C C C C A A G C C C C A C T G C C A G G  
 SEQ. ID. NO. 20 G G C T C C A G C T C A C C A G C C C T G T C A A  
 SEQ. ID. NO. 21 C T G G T G C A G C T T T C T T T T G C T G C A A

SEQ. ID. NO. 18 T C T T C T A C A T T C C C C A G G T C A G T T A  
 SEQ. ID. NO. 19 T G A A T C G A A C G C C A C A C T C A G A A C G  
 SEQ. ID. NO. 20 A C C G G C A G C G T T T C C C C A C T T T C T T  
 SEQ. ID. NO. 21 C C A C G C C C T G T T C T A G C C G A T A A G A A

SEQ. ID. NO. 18 T G C C T C C T C C A G C A G A C T C C T C A G C  
 SEQ. ID. NO. 19 G C G C G C A G T G T A C A T C G G G G C A C T G  
 SEQ. ID. NO. 20 C C G A A C G C A C C C A T C A G C C A C A C T C  
 SEQ. ID. NO. 21 A A A A T A C C C T T A T T T C T T T C G G A C C

SEQ. ID. NO. 18 A A C A A G A A T C A A T T C A A G T C T T T C C  
 SEQ. ID. NO. 19 T T T C C C A T G A G C G G G G G C T G G C C A G  
 SEQ. ID. NO. 20 C A C A A C C C T A C C C G C G T G A A A C T C T  
 SEQ. ID. NO. 21 G T C C C A T C A G A C A A T G C G G T G A A T C

SEQ. ID. NO. 18 T C C G A A C C A T C C C C A A T G A T G A G C A  
 SEQ. ID. NO. 19 G G G G C C A G G C C T G C C A G C C C G C G G T  
 SEQ. ID. NO. 20 T T G A A A A G T G G G G C T G G A A G A A G A T  
 SEQ. ID. NO. 21 C A G C C A T T C T G A A G T T G C T C A A G C A

SEQ. ID. NO. 18 C C A G G C C A C T G C C A T G G C A G A C A T C  
 SEQ. ID. NO. 19 G G A G A T G G C G C T G G A G G A C G T G A A T  
 SEQ. ID. NO. 20 T G C T A C C A T C C A G C A G A C C A C T G A G  
 SEQ. ID. NO. 21 C T A C C A G T G G A A G C G C G T G G G C A C G

Figure 5c

SEQ. ID. NO. 18 A T C G A G T A T T T C C G C T G G A A C T G G G  
 SEQ. ID. NO. 19 A G C C G C A G G G A C A T C C T G C C G G A C T  
 SEQ. ID. NO. 20 G T C T T C A C T T C G A C T C T G G A C G A C C  
 SEQ. ID. NO. 21 C T G A C G C A A G A C G T T C A G A G G T T C T

SEQ. ID. NO. 18 T G G G C A C A A T T G C A G C T G A T G A C G A  
 SEQ. ID. NO. 19 A T G A G C T C A A G C T C A T C C A C C A C G A  
 SEQ. ID. NO. 20 T G G A G G A A C G A G T G A A G G A G G C T G G  
 SEQ. ID. NO. 21 C T G A G G T G C G G A A T G A C C T G A C T G G

SEQ. ID. NO. 18 C T A T G G G C G G C C G G G G A T T G A G A A A  
 SEQ. ID. NO. 19 C A G C A A G T G T G A T C C A G G C C A A G C C  
 SEQ. ID. NO. 20 A A T T G A G A T T A C T T T C C G C C A G A G T  
 SEQ. ID. NO. 21 A G T T C T G T A T G G C G A G G A C A T T G A G

SEQ. ID. NO. 18 T T C C G A G A G G A A G C T G A G G A A A G G G  
 SEQ. ID. NO. 19 A C C A A G T A C C T A T A T G A G C T G C T C T  
 SEQ. ID. NO. 20 T T C T T C T C A G A T C C A G C T G T G C C C G  
 SEQ. ID. NO. 21 A T T T C A G A C A C C G A G A G C T T C T C C A

SEQ. ID. NO. 18 A T A T C T G C A T C G A C T T C A G T G A A C T  
 SEQ. ID. NO. 19 A C A A C G A C C C T A T C A A G A T C A T C C T  
 SEQ. ID. NO. 20 T C A A A A A C C T G A A G C G C C A G G A T G C  
 SEQ. ID. NO. 21 A C G A T C C C T G T A C C A G T G T C A A A A A

SEQ. ID. NO. 18 C A T C T C C C A G T A C T C T G A T G A G G A A  
 SEQ. ID. NO. 19 T A T G C C T G G C T G C A G C T C T G T C T C C  
 SEQ. ID. NO. 20 C C G A A T C A T C G T G G G A C T T T T C T A T  
 SEQ. ID. NO. 21 G C T G A A G G G G A A T G A T G T G C G G A T C

SEQ. ID. NO. 18 G A G A T C C A G C A T G T G G T A G A G G T G A  
 SEQ. ID. NO. 19 A C G C T G G T G G C T G A G G C T G C T A G G A  
 SEQ. ID. NO. 20 G A G A C T G A A G C C C G G A A A G T T T T T T  
 SEQ. ID. NO. 21 A T C C T T G G C C A G T T T G A C C A G A A T A

SEQ. ID. NO. 18 T T C A A A A T T C C A C G G C C A A A G T C A T  
 SEQ. ID. NO. 19 T G T G G A A C C T C A T T G T G C T T T C C T A  
 SEQ. ID. NO. 20 G T G A G G T G T A C A A G G A G C G T C T C T T  
 SEQ. ID. NO. 21 T G G C A G C A A A A G T G T T C T G T T G T G C

Figure 5d

SEQ. ID. NO. 18 C G T G G T T T T C T C C A G T G G C C C A G A T  
 SEQ. ID. NO. 19 T G G C T C C A G C T C A C C A G C C C T G T C A  
 SEQ. ID. NO. 20 T G G G A A G A A G T A C G T C T G G T T C C T C  
 SEQ. ID. NO. 21 A T A C G A G G A G A A C A T G T A T G G T A G T

SEQ. ID. NO. 18 C T T G A G C C C C T C A T C A A G G A G A T T G  
 SEQ. ID. NO. 19 A A C C G G C A G C G T T T C C C C A C T T T C T  
 SEQ. ID. NO. 20 A T T G G G T G G T A T G C T G A C A A T T G G T  
 SEQ. ID. NO. 21 A A A T A T C A G T G G A T C A T T C C G G G C T

SEQ. ID. NO. 18 T C C G G C G C A A T A T C A C G G G C A A G A T  
 SEQ. ID. NO. 19 T C C G A A C G C A C C C A T C A G C C A C A C T  
 SEQ. ID. NO. 20 T C A A G A T C T A C G A C C C T T C T A T C A A  
 SEQ. ID. NO. 21 G G T A C G A G C C T T C T T G G T G G G A G C A

SEQ. ID. NO. 18 C T G G C T G G C C A G C G A G G C C T G G G C C  
 SEQ. ID. NO. 19 C C A C A A C C C T A C C C G C G T G A A A C T C  
 SEQ. ID. NO. 20 C T G C A C A G T G G A T G A G A T G A C T G A G  
 SEQ. ID. NO. 21 G G T G C A C A C G G A A G C C A A C T C A T C C

SEQ. ID. NO. 18 A G C T C C T C C C T G A T C G C C A T G C C T C  
 SEQ. ID. NO. 19 T T T G A A A A G T G G G G C T G G A A G A A G A  
 SEQ. ID. NO. 20 G C G G T G G A G G G C C A C A T C A C A A C T G  
 SEQ. ID. NO. 21 C G C T G C C T C C G G A A G A A T C T G C T T G

SEQ. ID. NO. 18 A G T A C T T C C A C G T G G T T G G C G G C A C  
 SEQ. ID. NO. 19 T T G C T A C C A T C C A G C A G A C C A C T G A  
 SEQ. ID. NO. 20 A G A T T G T C A T G C T G A A T C C T G C C A A  
 SEQ. ID. NO. 21 C T G C C A T G G A G G G C T A C A T T G G C G T

SEQ. ID. NO. 18 C A T T G G A T T C G C T C T G A A G G C T G G G  
 SEQ. ID. NO. 19 G G T C T T C A C T T C G A C T C T G G A C G A C  
 SEQ. ID. NO. 20 T A C C C G C A G C A T T T C C A A C A T G A C A  
 SEQ. ID. NO. 21 G G A T T T C G A G C C C C T G A G C T C C A A G

SEQ. ID. NO. 18 C A G A T C C C A G G C T T C C G G G A A T T C C  
 SEQ. ID. NO. 19 C T G G A G G A A C G A G T G A A G G A G G C T G  
 SEQ. ID. NO. 20 T C C C A G G A A T T T G T G G A G A A A C T A A  
 SEQ. ID. NO. 21 C A G A T C A A G A C C A T C T C A G G A A A G A

Figure 5e

SEQ. ID. NO. 18 T G A A G A A G G T C C A T C C C A G G A A G T C  
 SEQ. ID. NO. 19 G A A T T G A G A T T A C T T T C C G C C A G A G  
 SEQ. ID. NO. 20 C C A A G C G A C T G A A A A G A C A C C C T G A  
 SEQ. ID. NO. 21 C T C C A C A G C A G T A T G A G A G A G A G T A

SEQ. ID. NO. 18 T G T C C A C A A T G G T T T T G C C A A G G A G  
 SEQ. ID. NO. 19 T T T C T T C T C A G A T C C A G C T G T G C C C  
 SEQ. ID. NO. 20 G G A G A C A G G A G G C T T C C A G G A G G C A  
 SEQ. ID. NO. 21 C A A C A A C A A G C G G T C A G G C G T G G G G

SEQ. ID. NO. 18 T T T T G G G A A G A A A C A T T T A A C T G C C  
 SEQ. ID. NO. 19 G T C A A A A A C C T G A A G C G C C A G G A T G  
 SEQ. ID. NO. 20 C C G C T G G C C T A T G A T G C C A T C T G G G  
 SEQ. ID. NO. 21 C C C A G C A A A G T T C C A C G G G T A C G C C T

SEQ. ID. NO. 18 A C C T C C A A G A A G G T G C A A A A G G A C C  
 SEQ. ID. NO. 19 C C C G A A T C A T C G T G G G A C T T T T C T A  
 SEQ. ID. NO. 20 C C T T G G C A C T G G C C C T G A A C A A G A C  
 SEQ. ID. NO. 21 A C G A T G G C A T C T G G G T C A T C G C C A A

SEQ. ID. NO. 18 T T T A C C T G T G G A C A C C T T T C T G A G A  
 SEQ. ID. NO. 19 T G A G A C T G A A G C C C G G A A A G T T T T T  
 SEQ. ID. NO. 20 A T C T G G A G G A G G C G G C C G T T C T G G T  
 SEQ. ID. NO. 21 G A C A C T G C A G A G G G C C A T G G A G A C A

SEQ. ID. NO. 18 G G T C A C G A A G A A A G T G G C G A C A G G T  
 SEQ. ID. NO. 19 T G T G A G G T G T A C A A G G A G C G T C T C T  
 SEQ. ID. NO. 20 G T G C G C C T G G A G G A C T T C A A C T A C A  
 SEQ. ID. NO. 21 C T G C A T G C C A G C A G C C G G C A C C A G C

SEQ. ID. NO. 18 T T A G C A A C A G C T C G A C A G C C T T C C G  
 SEQ. ID. NO. 19 T T G G G A A G A A G T A C G T C T G G T T C C T  
 SEQ. ID. NO. 20 A C A A C C A G A C C A T T A C C G A C C A A A T  
 SEQ. ID. NO. 21 G G A T C C A G G A C T T C A A C T A C A C G G A

SEQ. ID. NO. 18 A C C C C T C T G T A C A G G G G A T G A G A A C  
 SEQ. ID. NO. 19 C A T T G G G T G G T A T G C T G A C A A T T G G  
 SEQ. ID. NO. 20 C T A C C G G G C A A T G A A C T C T T C G T C C  
 SEQ. ID. NO. 21 C C A C A C G C T G G G C A G G A T C A T C C T C

Figure 5f



SEQ. ID. NO. 18 A T C A G C A G T G T C G A G A C C C C T T A C A  
 SEQ. ID. NO. 19 T T C A A G A T C T A C G A C C C T T C T A T C A  
 SEQ. ID. NO. 20 T T T G A G G G T G T C T C T G G C C A T G T G G  
 SEQ. ID. NO. 21 A A T G C C A T G A A C G A G A C C A A C T T C T

SEQ. ID. NO. 18 T A G A T T A C A C G C A T T T A C G G A T A T C  
 SEQ. ID. NO. 19 A C T G C A C A G T G G A T G A G A T G A C T G A  
 SEQ. ID. NO. 20 T G T T T G A T G C C A G C G G C T C T C G G A T  
 SEQ. ID. NO. 21 T C G G G G T C A C G G G T C A A G T T G T A T T

SEQ. ID. NO. 18 C T A C A A T G T G T A C T T A G C A G T C T A C  
 SEQ. ID. NO. 19 G G C G G T G G A G G G C C A C A T C A C A A C T  
 SEQ. ID. NO. 20 G G C A T G G A C G C T T A T C G A G C A G C T T  
 SEQ. ID. NO. 21 C C G G A A T G G G G A G A G A A T G G G G A C C

SEQ. ID. NO. 18 T C C A T T G C C C A C G C C T T G C A A G A T A  
 SEQ. ID. NO. 19 G A G A T T G T C A T G C T G A A T C C T G C C A  
 SEQ. ID. NO. 20 C A G G G T G G C A G C T A C A A G A A G A T T G  
 SEQ. ID. NO. 21 A T T A A A T T T A C T C A A T T T C A A G A C A

SEQ. ID. NO. 18 T A T A T A C C T G C T T A C C T G G G A G A G G  
 SEQ. ID. NO. 19 A T A C C C G C A G C A T T T C C A A C A T G A C  
 SEQ. ID. NO. 20 G C T A C T A T G A C A G C A C C A A G G A T G A  
 SEQ. ID. NO. 21 G C A G G G A G G T G A A G G T G G G A G A G T A

SEQ. ID. NO. 18 G C T C T T C A C C A A T G G C T C C T G T G C A  
 SEQ. ID. NO. 19 A T C C C A G G A A T T T G T G G A G A A A C T A  
 SEQ. ID. NO. 20 T C T T T C C T G G T C C A A A A C A G A T A A A  
 SEQ. ID. NO. 21 C A A C G C T G T G G C C G A C A C A C T G G A G

SEQ. ID. NO. 18 G A C A T C A A G A A A G T T G A G G C G T G G C  
 SEQ. ID. NO. 19 A C C A A G C G A C T G A A A A G A C A C C C T G  
 SEQ. ID. NO. 20 T G G A T T G G A G G G T C C C C C C A G C T G  
 SEQ. ID. NO. 21 A T C A T C A A T G A C A C C A T C A G G T T C C

SEQ. ID. NO. 18 A G G T C C T G A A G C A C C T A C G G C A T C T  
 SEQ. ID. NO. 19 A G G A G A C A G G A G G C T T C C A G G A G G C  
 SEQ. ID. NO. 20 A C C A G A C C C T G G T C A T C A A G A C A T T  
 SEQ. ID. NO. 21 A A G G A T C C G A A C C A C C A A A A G A C A A

Figure 5g

SEQ. ID. NO. 18 A A A C T T T A C A A A C A A T A T G G G G G A G  
 SEQ. ID. NO. 19 A C C G C T G G C C T A T G A T G C C A T C T G G  
 SEQ. ID. NO. 20 C C G C T T C C T G T C A C A G A A A C T C T T T  
 SEQ. ID. NO. 21 G A C C A T C A T C C T G G A G C A G C T G C G G

SEQ. ID. NO. 18 C A G G T G A C C T T T G A T G A G T G T G G T G  
 SEQ. ID. NO. 19 G C C T T G G C A C T G G C C C T G A A C A A G A  
 SEQ. ID. NO. 20 A T C T C C G T C T C A G T T C T C T C C A G C C  
 SEQ. ID. NO. 21 A A G A T C T C C C T A C C T C T C T A C A G C A

SEQ. ID. NO. 18 A C C T G G T G G G G A A C T A T T C C A T C A T  
 SEQ. ID. NO. 19 C A T C T G G A G G A G G C G G C C G T T C T G G  
 SEQ. ID. NO. 20 T G G G C A T T G T C C T A G C T G T T G T C T G  
 SEQ. ID. NO. 21 T C C T C T C T G C C C T C A C C A T C C T C G G

SEQ. ID. NO. 18 C A A C T G G C A C C T C T C C C C A G A G G A T  
 SEQ. ID. NO. 19 T G T G C G C C T G G A G G A C T T C A A C T A C  
 SEQ. ID. NO. 20 T C T G T C C T T T A A C A T C T A C A A C T C A  
 SEQ. ID. NO. 21 G A T G A T C A T G G C C A G T G C T T T T C T C

SEQ. ID. NO. 18 G G C T C C A T C G T G T T T A A G G A A G T C G  
 SEQ. ID. NO. 19 A A C A A C C A G A C C A T T A C C G A C C A A A  
 SEQ. ID. NO. 20 C A T G T C C G T T A T A T C C A G A A C T C A C  
 SEQ. ID. NO. 21 T T C T T C A A C A T C A A G A A C C G G A A T C

SEQ. ID. NO. 18 G G T A T T A C A A C G T C T A T G C C A A G A A  
 SEQ. ID. NO. 19 T C T A C C G G G C A A T G A A C T C T T C G T C  
 SEQ. ID. NO. 20 A G C C C A A C C T G A A C A A C C T G A C T G C  
 SEQ. ID. NO. 21 A G A A G C T C A T A A A G A T G T C G A G T C C

SEQ. ID. NO. 18 G G G A G A A A G A C T C T T C A T C A A C G A G  
 SEQ. ID. NO. 19 C T T T G A G G G T G T C T C T G G C C A T G T G  
 SEQ. ID. NO. 20 T G T G G G C T G C T C A C T G G C T T T A G C T  
 SEQ. ID. NO. 21 A T A C A T G A A C A A C C T T A T C A T C C T T

SEQ. ID. NO. 18 G A G A A A A T C C T G T G G A G T G G G T T C T  
 SEQ. ID. NO. 19 G T G T T T G A T G C C A G C G G C T C T C G G A  
 SEQ. ID. NO. 20 G C T G T C T T C C C C C T G G G G C T C G A T G  
 SEQ. ID. NO. 21 G G A G G G A T G C T C T C C T A T G C T T C C A

Figure 5h

SEQ. ID. NO. 18 C C A G G G A G G T G C C C T T C T C C A A C T G  
 SEQ. ID. NO. 19 T G G C A T G G A C G C T T A T C G A G C A G C T  
 SEQ. ID. NO. 20 G T T A C C A C A T T G G G A G G A A C C A G T T  
 SEQ. ID. NO. 21 T A T T T C T C T T T G G C C T T G A T G G A T C

SEQ. ID. NO. 18 C A G C C G A G A C T G C C T G G C A G G G A C C  
 SEQ. ID. NO. 19 T C A G G G T G G C A G C T A C A A G A A G A T T  
 SEQ. ID. NO. 20 T C C T T T C G T C T G C C A G G C C C G C C T C  
 SEQ. ID. NO. 21 C T T T G T C T C T G A A A A G A C C T T T G A A

SEQ. ID. NO. 18 A G G A A A G G G A T C A T T G A G G G G G A G C  
 SEQ. ID. NO. 19 G G C T A C T A T G A C A G C A C C A A G G A T G  
 SEQ. ID. NO. 20 T G G C T C C T G G G C C T G G G C T T T A G T C  
 SEQ. ID. NO. 21 A C A C T T T G C A C C G T C A G G A C C T G G A

SEQ. ID. NO. 18 C C A C C T G C T G C T T T G A G T G T G T G G A  
 SEQ. ID. NO. 19 A T C T T T C C T G G T C C A A A A C A G A T A A  
 SEQ. ID. NO. 20 T G G G C T A C G G T T C C A T G T T C A C C A A  
 SEQ. ID. NO. 21 T T C T C A C C G T G G G C T A C A C G A C C G C

SEQ. ID. NO. 18 G T G T C C T G A T G G G G A G T A T A G T G A T  
 SEQ. ID. NO. 19 A T G G A T T G G A G G G T C C C C C C C A G C T  
 SEQ. ID. NO. 20 G A T T T G G T G G G T C C A C A C G G T C T T C  
 SEQ. ID. NO. 21 T T T T G G G G C C A T G T T T G C A A A G A C C

SEQ. ID. NO. 18 G A G A C A G A T G C C A G T G C C T G T A A C A  
 SEQ. ID. NO. 19 G A C C A G A C C C T G G T C A T C A A G A C A T  
 SEQ. ID. NO. 20 A C A A A G A A G G A A G A A A A G A A G G A G T  
 SEQ. ID. NO. 21 T G G A G A G T C C A C G C C A T C T T C A A A A

SEQ. ID. NO. 18 A G T G C C C A G A T G A C T T C T G G T C C A A  
 SEQ. ID. NO. 19 T C C G C T T C C T G T C A C A G A A A C T C T T  
 SEQ. ID. NO. 20 G G A G G A A G A C T C T G G A A C C C T G G A A  
 SEQ. ID. NO. 21 A T G T G A A A A T G A A G A A G A A G A T C A T

SEQ. ID. NO. 18 T G A G A A C C A C A C C T C C T G C A T T G C C  
 SEQ. ID. NO. 19 T A T C T C C G T C T C A G T T C T C T C C A G C  
 SEQ. ID. NO. 20 G C T G T A T G C C A C A G T G G G C C T G C T G  
 SEQ. ID. NO. 21 C A A G G A C C A G A A A C T G C T T G T G A T C

Figure 5i

SEQ. ID. NO. 18 A A G G A G A T C G A G T T T C T G T C G T G G A  
 SEQ. ID. NO. 19 C T G G G C A T T G T C C T A G C T G T T G T C T  
 SEQ. ID. NO. 20 G T G G G C A T G G A T G T C C T C A C T C T C G  
 SEQ. ID. NO. 21 G T G G G G G G C A T G C T G C T G A T C G A C C

SEQ. ID. NO. 18 C G G A G C C C T T T G G G A T C G C A C T C A C  
 SEQ. ID. NO. 19 G T C T G T C C T T T A A C A T C T A C A A C T C  
 SEQ. ID. NO. 20 C C A T C T G G C A G A T C G T G G A C C C T C T  
 SEQ. ID. NO. 21 T G T G T A T C C T G A T C T G C T G G C A G G C

SEQ. ID. NO. 18 C C T C T T T G C C G T G C T G G G C A T T T T C  
 SEQ. ID. NO. 19 A C A T G T C C G T T A T A T C C A G A A C T C A  
 SEQ. ID. NO. 20 G C A C C G G A C C A T T G A G A C A T T T G C C  
 SEQ. ID. NO. 21 T G T G G A C C C C C T G C G A A G G A C A G T G

SEQ. ID. NO. 18 C T G A C A G C C T T T G T G C T G G G T G T G T  
 SEQ. ID. NO. 19 C A G C C C A A C C T G A A C A A C C T G A C T G  
 SEQ. ID. NO. 20 A A G G A G G A A C C T A A G G A A G A T A T T G  
 SEQ. ID. NO. 21 G A G A A G T A C A G C A T G G A G C C G G A C C

SEQ. ID. NO. 18 T T A T C A A G T T C C G C A A C A C A C C C A T  
 SEQ. ID. NO. 19 C T G T G G G C T G C T C A C T G G C T T T A G C  
 SEQ. ID. NO. 20 A C G T C T C T A T T C T G C C C C A G C T G G A  
 SEQ. ID. NO. 21 C A G C A G G A C G G G A T A T C T C C A T C C G

SEQ. ID. NO. 18 T G T C A A G G C C A C C A A C C G A G A G C T C  
 SEQ. ID. NO. 19 T G C T G T C T T C C C C C T G G G G C T C G A T  
 SEQ. ID. NO. 20 G C A T T G C A G C T C C A G G A A G A T G A A T  
 SEQ. ID. NO. 21 C C C T C T C C T G G A G C A C T G T G A G A A C

SEQ. ID. NO. 18 T C C T A C C T C C T C C T C T T C T C C C T G C  
 SEQ. ID. NO. 19 G G T T A C C A C A T T G G G A G G A A C C A G T  
 SEQ. ID. NO. 20 A C A T G G C T T G G C A T T T T C T A T G G T T  
 SEQ. ID. NO. 21 A C C C A T A T G A C C A T C T G G C T T G G C A

SEQ. ID. NO. 18 T C T G C T G C T T C T C C A G C T C C C T G T T  
 SEQ. ID. NO. 19 T T C C T T T C G T C T G C C A G G C C C G C C T  
 SEQ. ID. NO. 20 A C A A G G G G C T G C T G C T G C T G G G  
 SEQ. ID. NO. 21 T C G T C T A T G C C T A C A A G G G A C T T C T

Figure 5J

SEQ. ID. NO. 18 C T T C A T C G G G G A G C C C C A G G A C T G G  
 SEQ. ID. NO. 19 C T G G C T C C T G G G C C T G G G C T T T A G T  
 SEQ. ID. NO. 20 A A T C T T C C T T G C T T A T G A G A C C A A G  
 SEQ. ID. NO. 21 C A T G T T G T T C G G T T G T T T C T T A G C T

SEQ. ID. NO. 18 A C G T G C C G C C T G C G C C A G C C G G C C T  
 SEQ. ID. NO. 19 C T G G G C T A C G G T T C C A T G T T C A C C A  
 SEQ. ID. NO. 20 A G T G T G T C C A C T G A G A A G A T C A A T G  
 SEQ. ID. NO. 21 T G G G A G A C C C G C A A C G T C A G C A T C C

SEQ. ID. NO. 18 T T G G C A T C A G C T T C G T G C T C T G C A T  
 SEQ. ID. NO. 19 A G A T T T G G T G G G T C C A C A C G G T C T T  
 SEQ. ID. NO. 20 A T C A C C G G G C T G T G G G C A T G G C T A T  
 SEQ. ID. NO. 21 C C G C A C T C A A C G A C A G C A A G T A C A T

SEQ. ID. NO. 18 C T C A T G C A T C C T G G T G A A A A C C A A C  
 SEQ. ID. NO. 19 C A C A A A G A A G G A A G A A A A G A A G G A G  
 SEQ. ID. NO. 20 C T A C A A T G T G G C A G T C C T G T G C C T C  
 SEQ. ID. NO. 21 C G G G A T G A G T G T C T A C A A C G T G G G G

SEQ. ID. NO. 18 C G T G T C C T C C T G G T G T T T G A G G C C A  
 SEQ. ID. NO. 19 T G G A G G A A G A C T C T G G A A C C C T G G A  
 SEQ. ID. NO. 20 A T C A C T G C T C C T G T C A C C A T G A T T C  
 SEQ. ID. NO. 21 A T C A T G T G C A T C A T C G G G G C C G C T G

SEQ. ID. NO. 18 A G A T C C C C A C C A G C T T C C A C C G C A A  
 SEQ. ID. NO. 19 A G C T G T A T G C C A C A G T G G G C C T G C T  
 SEQ. ID. NO. 20 T G T C C A G C C A G C A G G A T G C A G C C T T  
 SEQ. ID. NO. 21 T C T C C T T C C T G A C C C G G G A C C A G C C

SEQ. ID. NO. 18 G T G G T G G G G G C T C A A C C T G C A G T T C  
 SEQ. ID. NO. 19 G G T G G G C A T G G A T G T C C T C A C T C T C  
 SEQ. ID. NO. 20 T G C C T T T G C C T C T C T T G C C A T A G T T  
 SEQ. ID. NO. 21 C A A T G T G C A G T T C T G C A T C G T G G C T

SEQ. ID. NO. 18 C T G C T G G T T T T C C T C T G C A C C T T C A  
 SEQ. ID. NO. 19 G C C A T C T G G C A G A T C G T G G A C C C T C  
 SEQ. ID. NO. 20 T T C T C C T C C T A T A T C A C T C T T G T T G  
 SEQ. ID. NO. 21 C T G G T C A T C A T C T T C T G C A G C A C C A

Figure 5k

SEQ. ID. NO. 18 T G C A G A T T G T C A T C T G T G T G A T C T G  
 SEQ. ID. NO. 19 T G C A C C G G A C C A T T G A G A C A T T T G C  
 SEQ. ID. NO. 20 T G C T C T T T G T G C C C A A G A T G C G C A G  
 SEQ. ID. NO. 21 T C A C C C T C T G C C T G G T A T T C G T G C C

SEQ. ID. NO. 18 G C T C T A C A C C G C G C C C C C C T C A A G C  
 SEQ. ID. NO. 19 C A A G G A G G A A C C T A A G G A A G A T A T T  
 SEQ. ID. NO. 20 G C T G A T C A C C C G A G G G G A A T G G C A G  
 SEQ. ID. NO. 21 G A A G C T C A T C A C C C T G A G A A C A A A C

SEQ. ID. NO. 18 T A C C G C A A C C A G G A G C T G G A G G A T G  
 SEQ. ID. NO. 19 G A C G T C T C T A T T C T G C C C C A G C T G G  
 SEQ. ID. NO. 20 T C G G A G G C G C A G G A C A C C A T G A A G A  
 SEQ. ID. NO. 21 C C A G A T G C A G C A A C G C A G A A C A G G C

SEQ. ID. NO. 18 A G A T C A T C T T C A T C A C G T G C C A C G A  
 SEQ. ID. NO. 19 A G C A T T G C A G C T C C A G G A A G A T G A A  
 SEQ. ID. NO. 20 C A G G G T C A T C G A C C A A C A A C A A C G A  
 SEQ. ID. NO. 21 G A T T C C A G T T C A C T C A G A A T C A G A A

SEQ. ID. NO. 18 G G G C T C C C T C A T G G C C C T G G G C T T C  
 SEQ. ID. NO. 19 T A C A T G G C T T G G C A T T T T C T A T G G T  
 SEQ. ID. NO. 20 G G A G G A G A A G T C C C G G C T G T T G G A G  
 SEQ. ID. NO. 21 G A A A G A A G A T T C T A A A A C G T C C A C C

SEQ. ID. NO. 18 C T G A T C G G C T A C A C C T G C C T G C T G G  
 SEQ. ID. NO. 19 T A C A A G G G G C T G C T G C T G C T G C T G G  
 SEQ. ID. NO. 20 A A G G A G A A C C G T G A A C T G G A A A A G A  
 SEQ. ID. NO. 21 T C G G T C A C C A G T G T G A A C C A A G C C A

SEQ. ID. NO. 18 C T G C C A T C T G C T T C T T C T T T G C C T T  
 SEQ. ID. NO. 19 G A A T C T T C C T T G C T T A T G A G A C C A A  
 SEQ. ID. NO. 20 T C A T T G C T G A G A A A G A G G A G C G T G T  
 SEQ. ID. NO. 21 G C A C A T C C C G C C T G G A G G G C C T A C A

SEQ. ID. NO. 18 C A A G T C C C G G A A G C T G C C G G A G A A C  
 SEQ. ID. NO. 19 G A G T G T G T C C A C T G A G A A G A T C A A T  
 SEQ. ID. NO. 20 C T C T G A A C T G C G C C A T C A A C T C C A G  
 SEQ. ID. NO. 21 G T C A G A A A A C C A T C G C C T G C G A A T G

Figure 51

SEQ. ID. NO. 18 T T C A A T G A A G C C A A G T T C A T C A C C T  
 SEQ. ID. NO. 19 G A T C A C C G G G C T G T G G G C A T G G C T A  
 SEQ. ID. NO. 20 T C T C G G C A G C A G C T C C G C T C C C G G C  
 SEQ. ID. NO. 21 A A G A T C A C A G A G C T G G A T A A A G A C T

SEQ. ID. NO. 18 T C A G C A T G C T C A T C T T C T T C A T C G T  
 SEQ. ID. NO. 19 T C T A C A A T G T G G C A G T C C T G T G C C T  
 SEQ. ID. NO. 20 G C C A C C C A C C G A C A C C C C C A G A A C C  
 SEQ. ID. NO. 21 T G G A A G A G G T C A C C A T G C A G C T G C A

SEQ. ID. NO. 18 C T G G A T C T C C T T C A T T C C A G C C T A T  
 SEQ. ID. NO. 19 C A T C A C T G C T C C T G T C A C C A T G A T T  
 SEQ. ID. NO. 20 C T C T G G G G G C C T G C C C A G G G G A C C C  
 SEQ. ID. NO. 21 G G A C A C A C C A G A A A A G A C C A C C T A C

SEQ. ID. NO. 18 G C C A G C A C C T A T G G C A A G T T T G T C T  
 SEQ. ID. NO. 19 C T G T C C A G C C A G C A G G A T G C A G C C T  
 SEQ. ID. NO. 20 C C T G A G C C C C C C G A C C G G C T T A G C T  
 SEQ. ID. NO. 21 A T T A A A C A G A A C C A C T A C C A A G A G C

SEQ. ID. NO. 18 C T G C C G T A G A G G T G A T T G C C A T C C T  
 SEQ. ID. NO. 19 T T G C C T T T G C C T C T C T T G C C A T A G T  
 SEQ. ID. NO. 20 G T G A T G G G A G T C G A G T G C A T T T G C T  
 SEQ. ID. NO. 21 T C A A T G A C A T C C T C A A C C T G G G A A A

SEQ. ID. NO. 18 G G C A G C C A G C T T T G G C T T G C T G G C G  
 SEQ. ID. NO. 19 T T T C T C C T C C T A T A T C A C T C T T G T T  
 SEQ. ID. NO. 20 T T A T A A G T G A G G G T A G G G T G A G G G A  
 SEQ. ID. NO. 21 C T T C A C T G A G A G C A C A G A T G G A G G A

SEQ. ID. NO. 18 T G C A T C T T C T T C A A C A A G A T C T A C A  
 SEQ. ID. NO. 19 G T G C T C T T T G T G C C C A A G A T G C G C A  
 SEQ. ID. NO. 20 G G A C A G G C C A G T A G G G G G A G G G A A A  
 SEQ. ID. NO. 21 A A G G C C A T T T T A A A A A A T C A C C T C G

SEQ. ID. NO. 18 T C A T T C T C T T C A A G C C A T C C C G C A A  
 SEQ. ID. NO. 19 G G C T G A T C A C C C G A G G G G A A T G G C A  
 SEQ. ID. NO. 20 G G G A G A G G G G A A G G G C A G G G G A C T C  
 SEQ. ID. NO. 21 A T C A A A A T C C C C A G C T A C A G T G G A A

Figure 5m

SEQ. ID. NO. 18 C A C C A T C G A G G A G G T G C G T T G C A G C  
 SEQ. ID. NO. 19 G T C G G A G G C G C A G G A C A C C A T G A A G  
 SEQ. ID. NO. 20 A G G A A G C A G G G G G T C C C C A T C C C C A  
 SEQ. ID. NO. 21 C A C A A C A G A G C C C T C T C G A A C A T G C

SEQ. ID. NO. 18 A C C G C A G C T C A C G C T T T C A A G G T G G  
 SEQ. ID. NO. 19 A C A G G G T C A T C G A C C A A C A A C A A C G  
 SEQ. ID. NO. 20 G C T G G G A A G A A C A T G C T A T C C A A T C  
 SEQ. ID. NO. 21 A A A G A T C C T A T A G A A G A T A T A A A C T

SEQ. ID. NO. 18 C T G C C C G G G C C A C G C T G C G C C G C A G  
 SEQ. ID. NO. 19 A G G A G G A G A A G T C C C G G C T G T T G G A  
 SEQ. ID. NO. 20 T C A T C T C T T G T A A A T A C A T G T C C C C  
 SEQ. ID. NO. 21 C T C C A G A A C A C A T C C A G C G T C G G C T

SEQ. ID. NO. 18 C A A C G T C T C C C G C A A G C G G T C C A G C  
 SEQ. ID. NO. 19 G A A G G A G A A C C G T G A A C T G G A A A A G  
 SEQ. ID. NO. 20 C T G T G A G T T C T G G G C T G A T T T G G G T  
 SEQ. ID. NO. 21 G T C C C T C C A G C T C C C C A T C C T C C A C

SEQ. ID. NO. 18 A G C C T T G G A G G C T C C A C G G G A T C C A  
 SEQ. ID. NO. 19 A T C A T T G C T G A G A A A G A G G A G C G T G  
 SEQ. ID. NO. 20 C T C T C A T A C C T C T G G G A A A C A G A C C  
 SEQ. ID. NO. 21 C A C G C C T A C C T C C C A T C C A T C G G A G

SEQ. ID. NO. 18 C C C C C T C C T C C T C C A T C A G C A G C A A  
 SEQ. ID. NO. 19 T C T C T G A A C T G C G C C A T C A G C T C C A  
 SEQ. ID. NO. 20 T T T T T C T C T C T T A C T G C T T C A T G T A  
 SEQ. ID. NO. 21 G C G T G G A C G C C A G C T G T G T C A G C C C

SEQ. ID. NO. 18 G A G C A A C A G C G A A G A C C C A T T C C C A  
 SEQ. ID. NO. 19 G T C T C G G C A G C A G C T C C G C T C C C G G  
 SEQ. ID. NO. 20 A T T T T G T A T C A C C T C T T C A C A A T T T  
 SEQ. ID. NO. 21 C T G C G T C A G C C C C A C C G C C A G C C C C

SEQ. ID. NO. 18 C A G C C C G A G A G G C A G A A G C A G C A G C  
 SEQ. ID. NO. 19 C G C C A C C C A C C G A C A C C C C C A G A A C  
 SEQ. ID. NO. 20 A G T T C G T A C C T G G C T T G A A G C T G C T  
 SEQ. ID. NO. 21 C G C C A C A G A C A T G T G C C A C C C T C C T

Figure 5n



SEQ. ID. NO. 18 A G C C G C T G G C C C T A A C C C A G C A A G A  
 SEQ. ID. NO. 19 C C T C T G G G G G C C T G C C C A G G G G A C C  
 SEQ. ID. NO. 20 C A C T G C T C A C A C G C T G C C T C C T C A G  
 SEQ. ID. NO. 21 T C C G A G T C A T G G T C T C G G G C C T G T A

SEQ. ID. NO. 18 G C A G C A G C A G C A G C C C C T G A C C C T C  
 SEQ. ID. NO. 19 C C C T G A G C C C C C C G A C C G G C T T A G C  
 SEQ. ID. NO. 20 C A G C C T C A C T G C A T C T T T C T C T T C C  
 SEQ. ID. NO. 21 A G G G T G G G A G G C C T G G G C C C G G G G C

SEQ. ID. NO. 18 C C A C A G C A G C A A C G A T C T C A G C A G C  
 SEQ. ID. NO. 19 T G T G A T G G G A G T C G A G T G C A T T T G C  
 SEQ. ID. NO. 20 C A T G C A A C A C C C T C T T C T A G T T A C C  
 SEQ. ID. NO. 21 C T C C C C C G T G A C A G A A C C A C A C T G G

SEQ. ID. NO. 18 A G C C C A G A T G C A A G C A G A A G G T C A T  
 SEQ. ID. NO. 19 T T T A T A A G T G A G G G T A G G G T G A G G G  
 SEQ. ID. NO. 20 A C G G C A A C C C C T  
 SEQ. ID. NO. 21 G C A G A G G G G T C T G C T G C A G A A A C A C

SEQ. ID. NO. 18 C T T T G G C A G C G G C A C G G T C A C C T T C  
 SEQ. ID. NO. 19 A G G A C A G G C C A G T A G G G G G A G G G A A  
 SEQ. ID. NO. 20  
 SEQ. ID. NO. 21 T G T C G G C T C T G G C T G C G G A G A A G C T

SEQ. ID. NO. 18 T C A C T G A G C T T T G A T G A G C C T C A G A  
 SEQ. ID. NO. 19 A G G G A G A G G G G A A G G G C A G G G G A C T  
 SEQ. ID. NO. 20  
 SEQ. ID. NO. 21 G G G C A C C A T G G C T G G C C T C T C A G G A

SEQ. ID. NO. 18 A G A A C G C C A T G G C C C A C G G G A A T T C  
 SEQ. ID. NO. 19 C A G G A A G C A G G G G G T C C C C A T C C C C  
 SEQ. ID. NO. 20  
 SEQ. ID. NO. 21 C C A C T C G G A T G G C A C T C A G G T G G A C

SEQ. ID. NO. 18 T A C G C A C C A G A A C T C C C T G G A G G C C  
 SEQ. ID. NO. 19 A G C T G G G A A G A A C A T G C T A T C C A A T  
 SEQ. ID. NO. 20  
 SEQ. ID. NO. 21 A G G A C G G G G C A G G G G G A G A C T T G G C

Figure 5o

SEQ. ID. NO. 18 C A G A A A A G C A G C G A T A C G C T G A C C C  
 SEQ. ID. NO. 19 C T C A T C T C T T G T A A A T A C A T G T C C C  
 SEQ. ID. NO. 20  
 SEQ. ID. NO. 21 A C C T G A C C T C G A G C C T T A T T T G T G A

SEQ. ID. NO. 18 G A C A C C A G C C A T T A C T C C C G C T G C A  
 SEQ. ID. NO. 19 C C T G T G A G T T C T G G G C T G A T T T G G G  
 SEQ. ID. NO. 20  
 SEQ. ID. NO. 21 A G T C C T T A T T T C T T C A C A A A G A A G A

SEQ. ID. NO. 18 G T G C G G G G A A A C G G A C T T A G A T C T G  
 SEQ. ID. NO. 19 T C T C T C A T A C C T C T G G G A A A C A G A C  
 SEQ. ID. NO. 20  
 SEQ. ID. NO. 21 G G A A C G G A A A T G G G A C G T C T T C C T T

SEQ. ID. NO. 18 A C C G T C C A G G A A A C A G G T C T G C A A G  
 SEQ. ID. NO. 19 C T T T T T C T C T C T T A C T G C T T C A T G T  
 SEQ. ID. NO. 20  
 SEQ. ID. NO. 21 A A C A T C T G C A A A C A A G G A G G C G C T G

SEQ. ID. NO. 18 G A C C T G T G G G T G G A G A C C A G C G G C C  
 SEQ. ID. NO. 19 A A T T T T G T A T C A C C T C T T C A C A A T T  
 SEQ. ID. NO. 20  
 SEQ. ID. NO. 21 G G A T A T C A A A C T T G C A A A A A A A A A A

SEQ. ID. NO. 18 A G A G G T G G A G G A C C C T G A A G A G T T G  
 SEQ. ID. NO. 19 T A G T T C G T A C C T G G C T T G A A G C T G C  
 SEQ. ID. NO. 20  
 SEQ. ID. NO. 21 A A A A A A A A A A A A

SEQ. ID. NO. 18 T C C C C A G C A C T T G T A G T G T C C A G T T  
 SEQ. ID. NO. 19 T C A C T G C T C A C A C G C T G C C T C C T C A  
 SEQ. ID. NO. 20  
 SEQ. ID. NO. 21

SEQ. ID. NO. 18 C A C A G A G C T T T G T C A T C A G T G G T G G  
 SEQ. ID. NO. 19 G C A G C C T C A C T G C A T C T T T C T C T T C  
 SEQ. ID. NO. 20  
 SEQ. ID. NO. 21

Figure 5p

SEQ. ID. NO. 18 A G G C A G C A C T G T T A C A G A A A C G T A  
SEQ. ID. NO. 19 C C A T G C A A C A C C C T C T T C T A G T T A C  
SEQ. ID. NO. 20  
SEQ. ID. NO. 21

SEQ. ID. NO. 18 G T G A A T T C A  
SEQ. ID. NO. 19 C A C G G C A A C C C C T G C A G C T C C T C T G  
SEQ. ID. NO. 20  
SEQ. ID. NO. 21

SEQ. ID. NO. 18  
SEQ. ID. NO. 19 C C T T T G T G C T C T G T T C C T G T C C A G C  
SEQ. ID. NO. 20  
SEQ. ID. NO. 21

SEQ. ID. NO. 18  
SEQ. ID. NO. 19 A G G G G T C T C C C A A C A A G T G C T C T T T  
SEQ. ID. NO. 20  
SEQ. ID. NO. 21

SEQ. ID. NO. 18  
SEQ. ID. NO. 19 C C A C C C C A A A G G G G C C T C T C C T T T T  
SEQ. ID. NO. 20  
SEQ. ID. NO. 21

SEQ. ID. NO. 18  
SEQ. ID. NO. 19 C T C C A C T G T C A T A A T C T C T T T C C A T  
SEQ. ID. NO. 20  
SEQ. ID. NO. 21

SEQ. ID. NO. 18  
SEQ. ID. NO. 19 C T T A C T T G C C C T T C T A T A C T T T C T C  
SEQ. ID. NO. 20  
SEQ. ID. NO. 21

SEQ. ID. NO. 18  
SEQ. ID. NO. 19 A C A T G T G G C T C C C C C T G A A T T T T G C  
SEQ. ID. NO. 20  
SEQ. ID. NO. 21

Figure 5q

SEQ. ID. NO. 18  
SEQ. ID. NO. 19 T T C C T T T G G G G A G C T C A T T C T T T C G  
SEQ. ID. NO. 20  
SEQ. ID. NO. 21

SEQ. ID. NO. 18  
SEQ. ID. NO. 19 C C A A G G T C A C A T G C T C C C T T G C C T C  
SEQ. ID. NO. 20  
SEQ. ID. NO. 21

SEQ. ID. NO. 18  
SEQ. ID. NO. 19 T G G C T C C G T G C A  
SEQ. ID. NO. 20  
SEQ. ID. NO. 21

Figure 5r

FIGURE 6a

SEQ. ID. NO. 22 A T G C T G C T G C T G C T G C T G G T G C C T C T C T T C  
SEQ. ID. NO. 23 A T G G G C C C G G G G G G A C C C T G T A C C C C A G T G

SEQ. ID. NO. 22 C T C C G C C C C C T G G G C G C T G G C G G G G C G C A G  
SEQ. ID. NO. 23 G G G T G G C C G C T G C C T C T T C T G C T G G T G A T G

SEQ. ID. NO. 22 A C C C C C A A C G C C A C C T C G G A A G G T T G C C A G  
SEQ. ID. NO. 23 G C G G C T G G G G T G G C T C C G G T G T G G G C C T C T

SEQ. ID. NO. 22 A T T A T A C A T C C G C C C T G G G A A G G T G G C A T C  
SEQ. ID. NO. 23 C A C T C C C C T C A T C T C C C G C G G C C T C A C C C G

SEQ. ID. NO. 22 A G G T A C C G T G G C T T G A C T C G C G A C C A G G T G  
SEQ. ID. NO. 23 A G G G T C C C C C C G C A C C C C T C C T C A G A A C G G

SEQ. ID. NO. 22 A A G G C C A T C A A C T T C C T G C C T G T G G A C T A T  
SEQ. ID. NO. 23 C G T G C A G T A T A C A T C G G G G C G C T G T T T C C C

SEQ. ID. NO. 22 G A G A T C G A A T A T G T G T G C C G A G G G G A G C G C  
SEQ. ID. NO. 23 A T G A G C G G G G G C T G G C C G G G G G G C C A G G C C

SEQ. ID. NO. 22 G A G G T G G T G G G G C C C A A G G T G C G C A A A T G C  
SEQ. ID. NO. 23 T G C C A G C C C G C G G T G G A G A T G G C G C T G G A G

SEQ. ID. NO. 22 C T G G C C A A C G G C T C C T G G A C G G A T A T G G A C  
SEQ. ID. NO. 23 G A C G T T A A C A G C C G C A G A G A C A T C C T G C C G

SEQ. ID. NO. 22 A C A C C C A G C C G C T G T G T C C G A A T C T G C T C C  
SEQ. ID. NO. 23 G A C T A C G A G C T C A A G C T T A T C C A C C A C G A C

SEQ. ID. NO. 22 A A G T C T T A T T T G A C C C T G G A A A A T G G G A A G  
SEQ. ID. NO. 23 A G C A A G T G T G A C C C A G G G C A A G C C A C C A A G

SEQ. ID. NO. 22 G T T T T C C T G A C G G G T G G G G A C C T C C C A G C T  
SEQ. ID. NO. 23 T A C T T G T A C G A A C T A C T C T A C A A T G A C C C C

FIGURE 6b

SEQ. ID. NO. 22 C T G G A T G G A G C C C G G G T G G A G T T C C G A T G T  
 SEQ. ID. NO. 23 A T C A A G A T C A T T C T C A T G C C T G G C T G T A G T

SEQ. ID. NO. 22 G A C C C C G A C T T C C A T C T G G T G G G C A G C T C C  
 SEQ. ID. NO. 23 T C T G T C T C C A C A C T T G T A G C T G A G G C T G C C

SEQ. ID. NO. 22 C G G A G C G T C T G T A G T C A G G G C C A G T G G A G C  
 SEQ. ID. NO. 23 C G G A T G T G G A A C C T T A T T G T G C T C T C A T A T

SEQ. ID. NO. 22 A C C C C C A A G C C C C A C T G C C A G G T G A A T C G A  
 SEQ. ID. NO. 23 G G C T C C A G T T C A C C A G C C T T G T C A A A C C G A

SEQ. ID. NO. 22 A C G C C A C A C T C A G A A C G G C G T G C A G T A T A C  
 SEQ. ID. NO. 23 C A G C G G T T T C C C A C G T T C T T C C G G A C G C A T

SEQ. ID. NO. 22 A T C G G G G C G C T G T T T C C C A T G A G C G G G G G C  
 SEQ. ID. NO. 23 C C A T C C G C C A C A C T C C A C A A T C C C A C C C G G

SEQ. ID. NO. 22 T G G C C G G G G G G C C A G G C C T G C C A G C C C G C G  
 SEQ. ID. NO. 23 G T G A A A C T C T T C G A A A A G T G G G G C T G G A A G

SEQ. ID. NO. 22 G T G G A G A T G G C G C T G G A G G A C G T T A A C A G C  
 SEQ. ID. NO. 23 A A G A T C G C T A C C A T C C A A C A G A C C A C C G A G

SEQ. ID. NO. 22 C G C A G A G A C A T C C T G C C G G A C T A C G A G C T C  
 SEQ. ID. NO. 23 G T C T T C A C C T C A A C G C T G G A T G A C C T G G A G

SEQ. ID. NO. 22 A A G C T T A T C C A C C A C G A C A G C A A G T G T G A C  
 SEQ. ID. NO. 23 G A G C G A G T G A A A G A G G C T G G G A T C G A G A T C

SEQ. ID. NO. 22 C C A G G G C A A G C C A C C A A G T A C T T G T A C G A A  
 SEQ. ID. NO. 23 A C T T T C C G A C A G A G T T T C T T C T C G G A T C C A

SEQ. ID. NO. 22 C T A C T C T A C A A T G A C C C C A T C A A G A T C A T T  
 SEQ. ID. NO. 23 G C T G T G C C T G T T A A A A C C T G A A G C G T C A A

SEQ. ID. NO. 22 C T C A T G C C T G G C T G T A G T T C T G T C T C C A C A  
 SEQ. ID. NO. 23 G A T G C T C G A A T C A T C G T G G G A C T T T T C T A T

FIGURE 6c

SEQ. ID. NO. 22 C T T G T A G C T G A G G C T G C C C G G A T G T G G A A C  
 SEQ. ID. NO. 23 G A G A C G G A A G C C C G G A A A G T T T T T T G T G A G

SEQ. ID. NO. 22 C T T A T T G T G C T C T C A T A T G G C T C C A G T T C A  
 SEQ. ID. NO. 23 G T C T A T A A G G A A A G G C T C T T T G G G A A G A A G

SEQ. ID. NO. 22 C C A G C C T T G T C A A A C C G A C A G C G G T T T C C C  
 SEQ. ID. NO. 23 T A C G T C T G G T T C C T C A T C G G G T G G T A T G C T

SEQ. ID. NO. 22 A C G T T C T T C C G G A C G C A T C C A T C C G C C A C A  
 SEQ. ID. NO. 23 G A C A A C T G G T T C A A G A C C T A T G A C C C G T C A

SEQ. ID. NO. 22 C T C C A C A A T C C C A C C C G G G T G A A A C T C T T C  
 SEQ. ID. NO. 23 A T C A A T T G T A C A G T G G A A G A A A T G A C C G A G

SEQ. ID. NO. 22 G A A A A G T G G G G C T G G A A G A A G A T C G C T A C C  
 SEQ. ID. NO. 23 G C G G T G G A G G G C C A C A T C A C C A C G G A G A T T

SEQ. ID. NO. 22 A T C C A A C A G A C C A C C G A G G T C T T C A C C T C A  
 SEQ. ID. NO. 23 G T C A T G C T G A A C C C T G C C A A C A C C C G A A G C

SEQ. ID. NO. 22 A C G C T G G A T G A C C T G G A G G A G C G A G T G A A A  
 SEQ. ID. NO. 23 A T T T C C A A C A T G A C G T C A C A G G A A T T T G T G

SEQ. ID. NO. 22 G A G G C T G G G A T C G A G A T C A C T T T C C G A C A G  
 SEQ. ID. NO. 23 G A G A A A C T A A C C A A G C G G C T G A A A A G A C A C

SEQ. ID. NO. 22 A G T T T C T T C T C G G A T C C A G C T G T G C C T G T T  
 SEQ. ID. NO. 23 C C C G A G G A G A C T G G A G G C T T C C A G G A G G C A

SEQ. ID. NO. 22 A A A A A C C T G A A G C G T C A A G A T G C T C G A A T C  
 SEQ. ID. NO. 23 C C A C T G G C C T A T G A T G C T A T C T G G G C C T T G

SEQ. ID. NO. 22 A T C G T G G G A C T T T T C T A T G A G A C G G A A G C C  
 SEQ. ID. NO. 23 G C T T T G G C C T T G A A C A A G A C G T C T G G A G G A

SEQ. ID. NO. 22 C G G A A A G T T T T T T G T G A G G T C T A T A A G G A A  
 SEQ. ID. NO. 23 G G T G G T C G T T C C G G C G T G C G C C T G G A G G A C

FIGURE 6d

SEQ. ID. NO. 22 A G G C T C T T T G G G A A G A A G T A C G T C T G G T T C  
 SEQ. ID. NO. 23 T T T A A C T A C A A C A A C C A G A C C A T T A C A G A C

SEQ. ID. NO. 22 C T C A T C G G G T G G T A T G C T G A C A A C T G G T T C  
 SEQ. ID. NO. 23 C A G A T C T A C C G G G C C A T G A A C T C C T C C T C C

SEQ. ID. NO. 22 A A G A C C T A T G A C C C G T C A A T C A A T T G T A C A  
 SEQ. ID. NO. 23 T T T G A G G G C G T T T C T G G C C A T G T G G T C T T T

SEQ. ID. NO. 22 G T G G A A G A A A T G A C C G A G G C G G T G G A G G G C  
 SEQ. ID. NO. 23 G A T G C C A G C G G C T C C C G G A T G G C A T G G A C A

SEQ. ID. NO. 22 C A C A T C A C C A C G G A G A T T G T C A T G C T G A A C  
 SEQ. ID. NO. 23 C T T A T C G A G C A G C T A C A G G G C G G C A G C T A C

SEQ. ID. NO. 22 C C T G C C A A C A C C C G A A G C A T T T C C A A C A T G  
 SEQ. ID. NO. 23 A A G A A G A T C G G C T A C T A C G A C A G C A C C A A G

SEQ. ID. NO. 22 A C G T C A C A G G A A T T T G T G G A G A A A C T A A C C  
 SEQ. ID. NO. 23 G A T G A T C T T T C C T G G T C C A A A A C G G A C A A G

SEQ. ID. NO. 22 A A G C G G C T G A A A A G A C A C C C C G A G G A G A C T  
 SEQ. ID. NO. 23 T G G A T T G G A G G G T C T C C C C C A G C T G A C C A G

SEQ. ID. NO. 22 G G A G G C T T C C A G G A G G C A C C A C T G G C C T A T  
 SEQ. ID. NO. 23 A C C T T G G T C A T C A A G A C A T T C C G T T T C C T G

SEQ. ID. NO. 22 G A T G C T A T C T G G G C C T T G G C T T T G G C C T T G  
 SEQ. ID. NO. 23 T C T C A G A A A C T C T T T A T C T C C G T C T C A G T T

SEQ. ID. NO. 22 A A C A A G A C G T C T G G A G G A G G T G G T C G T T C C  
 SEQ. ID. NO. 23 C T C T C C A G C C T G G G C A T T G T T C T T G C T G T T

SEQ. ID. NO. 22 G G C G T G C G C C T G G A G G A C T T T A A C T A C A A C  
 SEQ. ID. NO. 23 G T C T G T C T G T C C T T T A A C A T C T A C A A C T C C

SEQ. ID. NO. 22 A A C C A G A C C A T T A C A G A C C A G A T C T A C C G G  
 SEQ. ID. NO. 23 C A C G T T C G T T A T A T C C A G A A C T C C C A G C C C



FIGURE 6e

SEQ. ID. NO. 22 G C C A T G A A C T C C T C C T C C T T T G A G G G C G T T  
 SEQ. ID. NO. 23 A A C C T G A A C A A T C T G A C T G C T G T G G G C T G C

SEQ. ID. NO. 22 T C T G G C C A T G T G G T C T T T G A T G C C A G C G G C  
 SEQ. ID. NO. 23 T C A C T G G C A C T G G C T G C T G T C T T C C C T C T C

SEQ. ID. NO. 22 T C C C G G A T G G C A T G G A C A C T T A T C G A G C A G  
 SEQ. ID. NO. 23 G G G C T G G A T G G T T A C C A C A T A G G G A G A A G C

SEQ. ID. NO. 22 C T A C A G G G C G G C A G C T A C A A G A A G A T C G G G C  
 SEQ. ID. NO. 23 C A G T T C C C G T T T G T C T G C C A G G C C C G C C T T

SEQ. ID. NO. 22 T A C T A C G A C A G C A C C A A G G A T G A T C T T T C C  
 SEQ. ID. NO. 23 T G G C T C T T G G G C T T G G G C T T T A G T C T G G G C

SEQ. ID. NO. 22 T G G T C C A A A A C G G A C A A G T G G A T T G G A G G G  
 SEQ. ID. NO. 23 T A T G G C T C T A T G T T C A C C A A G A T C T G G T G G

SEQ. ID. NO. 22 T C T C C C C C A G C T G A C C A G A C C T T G G T C A T C  
 SEQ. ID. NO. 23 G T C C A C A C A G T C T T C A C G A A G A A G G A G G A G

SEQ. ID. NO. 22 A A G A C A T T C C G T T T C C T G T C T C A G A A A C T C  
 SEQ. ID. NO. 23 A A G A A G G A G T G G A G G A A G A C C C T A G A G C C C

SEQ. ID. NO. 22 T T T A T C T C C G T C T C A G T T C T C T C C A G C C T G  
 SEQ. ID. NO. 23 T G G A A A C T C T A T G C C A C T G T G G G C C T G C T G

SEQ. ID. NO. 22 G G C A T T G T T C T T G C T G T T G T C T G T C T G T C C  
 SEQ. ID. NO. 23 G T G G G C A T G G A T G T C C T G A C T C T T G C C A T C

SEQ. ID. NO. 22 T T T A A C A T C T A C A A C T C C C A C G T T C G T T A T  
 SEQ. ID. NO. 23 T G G C A G A T T G T G G A C C C C T T G C A C C G A A C C

SEQ. ID. NO. 22 A T C C A G A A C T C C C A G C C C A A C C T G A A C A A T  
 SEQ. ID. NO. 23 A T T G A G A C T T T T G C C A A G G A G G A A C C A A A G

SEQ. ID. NO. 22 C T G A C T G C T G T G G G C T G C T C A C T G G G C A C T G  
 SEQ. ID. NO. 23 G A A G A C A T C G A T G T C T C C A T T C T G C C C C A G

FIGURE 6f

SEQ. ID. NO. 22 G C T G C T G T C T T C C C T C T C G G G C T G G A T G G T  
SEQ. ID. NO. 23 T T G G A G C A C T G C A G C T C C A A G A A G A T G A A T

SEQ. ID. NO. 22 T A C C A C A T A G G G A G A A G C C A G T T C C C G T T T  
SEQ. ID. NO. 23 A C G T G G C T T G G C A T T T T C T A T G G T T A C A A G

SEQ. ID. NO. 22 G T C T G C C A G G C C C G C C T T T G G C T C T T G G G C  
SEQ. ID. NO. 23 G G G C T G C T G C T G C T G C T G G G A A T C T T T C T T

SEQ. ID. NO. 22 T T G G G C T T T A G T C T G G G C T A T G G C T C T A T G  
SEQ. ID. NO. 23 G C T T A C G A A A C C A A G A G C G T G T C C A C T G A A

SEQ. ID. NO. 22 T T C A C C A A G A T C T G G T G G G T C C A C A C A G T C  
SEQ. ID. NO. 23 A A G A T C A A T G A C C A C A G G G C C G T G G G C A T G

SEQ. ID. NO. 22 T T C A C G A A G A A G G A G G A G A A G A A G G A G T G G  
SEQ. ID. NO. 23 G C T A T C T A C A A T G T C G C G G T C C T G T G T C T C

SEQ. ID. NO. 22 A G G A A G A C C C T A G A G C C C T G G A A A C T C T A T  
SEQ. ID. NO. 23 A T C A C T G C T C C T G T G A C C A T G A T C C T T T C C

SEQ. ID. NO. 22 G C C A C T G T G G G C C T G C T G G T G G G C A T G G A T  
SEQ. ID. NO. 23 A G T C A G C A G G A C G C A G C C T T T G C C T T T G C C

SEQ. ID. NO. 22 G T C C T G A C T C T T G C C A T C T G G C A G A T T G T G  
SEQ. ID. NO. 23 T C T C T G G C C A T C G T G T T C T C T T C C T A C A T C

SEQ. ID. NO. 22 G A C C C C T T G C A C C G A A C C A T T G A G A C T T T T  
SEQ. ID. NO. 23 A C T C T G G T T G T G C T C T T T G T G C C C A A G A T G

SEQ. ID. NO. 22 G C C A A G G A G G A A C C A A A G G A A G A C A T C G A T  
SEQ. ID. NO. 23 C G C A G G C T G A T C A C C C G A G G G G A A T G G C A G

SEQ. ID. NO. 22 G T C T C C A T T C T G C C C C A G T T G G A G C A C T G C  
SEQ. ID. NO. 23 T C T G A A A C G C A G G A C A C C A T G A A A A C A G G A

SEQ. ID. NO. 22 A G C T C C A A G A A G A T G A A T A C G T G G C T T G G C  
SEQ. ID. NO. 23 T C A T C C A C C A A C A A C A A C G A G G A A G A G A A G

FIGURE 6c

SEQ. ID. NO. 22 A T T T T C T A T G G T T A C A A G G G G C T G C T G C T G  
 SEQ. ID. NO. 23 T C C C G A C T G T T G G A G A A G G A A A A C C G A G A A

SEQ. ID. NO. 22 C T G C T G G G A A T C T T T C T T G C T T A C G A A A C C  
 SEQ. ID. NO. 23 C T G G A A A A G A T C A T C G C T G A G A A A G A G G A G

SEQ. ID. NO. 22 A A G A G C G T G T C C A C T G A A A A G A T C A A T G A C  
 SEQ. ID. NO. 23 C G C G T C T C T G A A C T G C G C C A T C A G C T C C A G

SEQ. ID. NO. 22 C A C A G G G C C G T G G G C A T G G C T A T C T A C A A T  
 SEQ. ID. NO. 23 T C T C G G C A G C A A C T C C G C T C A C G G C G C C A C

SEQ. ID. NO. 22 G T C G C G G T C C T G T G T C T C A T C A C T G C T C C T  
 SEQ. ID. NO. 23 C C C C C A A C A C C C C C A G A T C C C T C T G G G G G C

SEQ. ID. NO. 22 G T G A C C A T G A T C C T T T C C A G T C A G C A G G A C  
 SEQ. ID. NO. 23 C T T C C C A G G G G A C C C T C T G A G C C C C C T G A C

SEQ. ID. NO. 22 G C A G C C T T T G C C T T T G C C T C T C T G G C C A T C  
 SEQ. ID. NO. 23 C G G C T T A G C T G T G A T G G G A G T C G A G T A C A T

SEQ. ID. NO. 22 G T G T T C T C T T C C T A C A T C A C T C T G G T T G T G  
 SEQ. ID. NO. 23 T T G C T T T A C A A G

SEQ. ID. NO. 22 C T C T T T G T G C C C A A G A T G C G C A G G C T G A T C  
 SEQ. ID. NO. 23

SEQ. ID. NO. 22 A C C C G A G G G G A A T G G C A G T C T G A A A C G C A G  
 SEQ. ID. NO. 23

SEQ. ID. NO. 22 G A C A C C A T G A A A A C A G G A T C A T C C A C C A A C  
 SEQ. ID. NO. 23

SEQ. ID. NO. 22 A A C A A C G A G G A A G A G A A G T C C C G A C T G T T G  
 SEQ. ID. NO. 23

SEQ. ID. NO. 22 G A G A A G G A A A A C C G A G A A C T G G A A A A G A T C  
 SEQ. ID. NO. 23

FIGURE 61.

SEQ. ID. NO. 22 A T C G C T G A G A A A G A G G A G C G C G T C T C T G A A  
SEQ. ID. NO. 23

SEQ. ID. NO. 22 C T G C G C C A T C A G C T C C A G T C T C G G C A G C A A  
SEQ. ID. NO. 23

SEQ. ID. NO. 22 C T C C G C T C A C G G C G C C A C C C C C C A A C A C C C  
SEQ. ID. NO. 23

SEQ. ID. NO. 22 C C A G A T C C C T C T G G G G G C C T T C C C A G G G G A  
SEQ. ID. NO. 23

SEQ. ID. NO. 22 C C C T C T G A G C C C C C T G A C C G G C T T A G C T G T  
SEQ. ID. NO. 23

SEQ. ID. NO. 22 G A T G G G A G T C G A G T A C A T T T G C T T T A C A A G  
SEQ. ID. NO. 23

FIGURE 7c

SEQ. ID. NO. 24 M L L L L L V P L F L R P L G A G G A Q T P N A T S E G C Q  
 SEQ. ID. NO. 25 M G P G G P C T P V G W P L P L L L V M A A G V A P V W A S

SEQ. ID. NO. 24 I I H P P W E G G I R Y R G L T R D Q V K A I N F L P V D Y  
 SEQ. ID. NO. 25 H S P H L P R P H P R V P P H P S S E R R A V Y I G A L F P

SEQ. ID. NO. 24 E I E Y V C R G E R E V V G P K V R K C L A N G S W T D M D  
 SEQ. ID. NO. 25 M S G G W P G G Q A C Q P A V E M A L E D V N S R R D I L P

SEQ. ID. NO. 24 T P S R C V R I C S K S Y L T L E N G K V F L T G G D L P A  
 SEQ. ID. NO. 25 D Y E L K L I H H D S K C D P G Q A T K Y L Y E L L Y N D P

SEQ. ID. NO. 24 L D G A R V E F R C D P D F H L V G S S R S V C S Q G Q W S  
 SEQ. ID. NO. 25 I K I I L M P G C S S V S T L V A E A A R M W N L I V L S Y

SEQ. ID. NO. 24 T P K P H C Q V N R T P H S E R R A V Y I G A L F P M S G G  
 SEQ. ID. NO. 25 G S S S P A L S N R Q R F P T F F R T H P S A T L H N P T R

SEQ. ID. NO. 24 W P G G Q A C Q P A V E M A L E D V N S R R D I L P D Y E L  
 SEQ. ID. NO. 25 V K L F E K W G W K K I A T I Q Q T T E V F T S T L D D L E

SEQ. ID. NO. 24 K L I H H D S K C D P G Q A T K Y L Y E L L Y N D P I K I I  
 SEQ. ID. NO. 25 E R V K E A G I E I T F R Q S F F S D P A V P V K N L K R Q

SEQ. ID. NO. 24 L M P G C S S V S T L V A E A A R M W N L I V L S Y G S S S  
 SEQ. ID. NO. 25 D A R I I V G L F Y E T E A R K V F C E V Y K E R L F G K K

SEQ. ID. NO. 24 P A L S N R Q R F P T F F R T H P S A T L H N P T R V K L F  
 SEQ. ID. NO. 25 Y V W F L I G W Y A D N W F K T Y D P S I N C T V E E M T E

SEQ. ID. NO. 24 E K W G W K K I A T I Q Q T T E V F T S T L D D L E E R V K  
 SEQ. ID. NO. 25 A V E G H I T T E I V M L N P A N T R S I S N M T S Q E F V

SEQ. ID. NO. 24 E A G I E I T F R Q S F F S D P A V P V K N L K R Q D A R I  
 SEQ. ID. NO. 25 E K L T K R L K R H P E E T G G F Q E A P L A Y D A I W A L

FIGURE 71

SEQ. ID. NO. 24 I V G L F Y E T E A R K V F C E V Y K E R L F G K K Y V W F  
 SEQ. ID. NO. 25 A L A L N K T S G G G G R S G V R L E D F N Y N N Q T I T D

SEQ. ID. NO. 24 L I G W Y A D N W F K T Y D P S I N C T V E E M T E A V E G  
 SEQ. ID. NO. 25 Q I Y R A M N S S S F E G V S G H V V F D A S G S R M A W T

SEQ. ID. NO. 24 H I T T E I V M L N P A N T R S I S N M T S Q E F V E K L T  
 SEQ. ID. NO. 25 L I E Q L Q G G S Y K K I G Y Y D S T K D D L S W S K T D K

SEQ. ID. NO. 24 K R L K R H P E E T G G F Q E A P L A Y D A I W A L A L A L  
 SEQ. ID. NO. 25 W I G G S P P A D Q I L V I K T F R F L S Q K L F I S V S V

SEQ. ID. NO. 24 N K T S G G G G R S G V R L E D F N Y N N Q T I T D Q I Y R  
 SEQ. ID. NO. 25 L S S L G I V L A V V C L S F N I Y N S H V R Y I Q N S Q P

SEQ. ID. NO. 24 A M N S S S F E G V S G H V V F D A S G S R M A W T L I E Q  
 SEQ. ID. NO. 25 N L N N L T A V G C S L A L A A V F P L G L D G Y H I G R S

SEQ. ID. NO. 24 L Q G G S Y K K I G Y Y D S T K D D L S W S K T D K W I G G  
 SEQ. ID. NO. 25 Q F P F V C Q A R L W L L G L G F S L G Y G S M F T K I W W

SEQ. ID. NO. 24 S P P A D Q I L V I K T F R F L S Q K L F I S V S V L S S L  
 SEQ. ID. NO. 25 V H T V F T K K E E K K E W R K T L E P W K L Y A T V G L L

SEQ. ID. NO. 24 G I V L A V V C L S F N I Y N S H V R Y I Q N S Q P N L N N  
 SEQ. ID. NO. 25 V G M D V L T L A I W Q I V D P L H R T I E T F A K E E P K

SEQ. ID. NO. 24 L T A V G C S L A L A A V F P L G L D G Y H I G R S Q F P F  
 SEQ. ID. NO. 25 E D I D V S I L P Q L E H C S S K K M N T W L G I F Y G Y K

SEQ. ID. NO. 24 V C Q A R L W L L G L G F S L G Y G S M F T K I W W V H T V  
 SEQ. ID. NO. 25 G L L L L L G I F L A Y E T K S V S T E K I N D H R A V G M

SEQ. ID. NO. 24 F T K K E E K K E W R K T L E P W K L Y A T V G L L V G M D  
 SEQ. ID. NO. 25 A I Y N V A V L C L I T A P V T M I L S S Q Q D A A F A F A

SEQ. ID. NO. 24 V L T L A I W Q I V D P L H R T I E T F A K E E P K E D I D  
 SEQ. ID. NO. 25 S L A I V F S S Y I T L V V L F V P K M R R L I T R G E W Q

FIGURE 7c

SEQ. ID. NO. 24 V S I L P Q L E H C S S K K M N T W L G I F Y G Y K G L L L  
SEQ. ID. NO. 25 S E T Q D T M K T G S S T N N N E E E K S R L L E K E N R E

SEQ. ID. NO. 24 L L G I F L A Y E T K S V S T E K I N D H R A V G M A I Y N  
SEQ. ID. NO. 25 L E K I I A E K E E R V S E L R H Q L Q S R Q Q L R S R R H

SEQ. ID. NO. 24 V A V L C L I T A P V T M I L S S Q Q D A A F A F A S L A I  
SEQ. ID. NO. 25 P P T P P D P S G G L P R G P S E P P D R L S C D G S R V H

SEQ. ID. NO. 24 V F S S Y I T L V V L F V P K M R R L I T R G E W Q S E T Q  
SEQ. ID. NO. 25 L L Y K

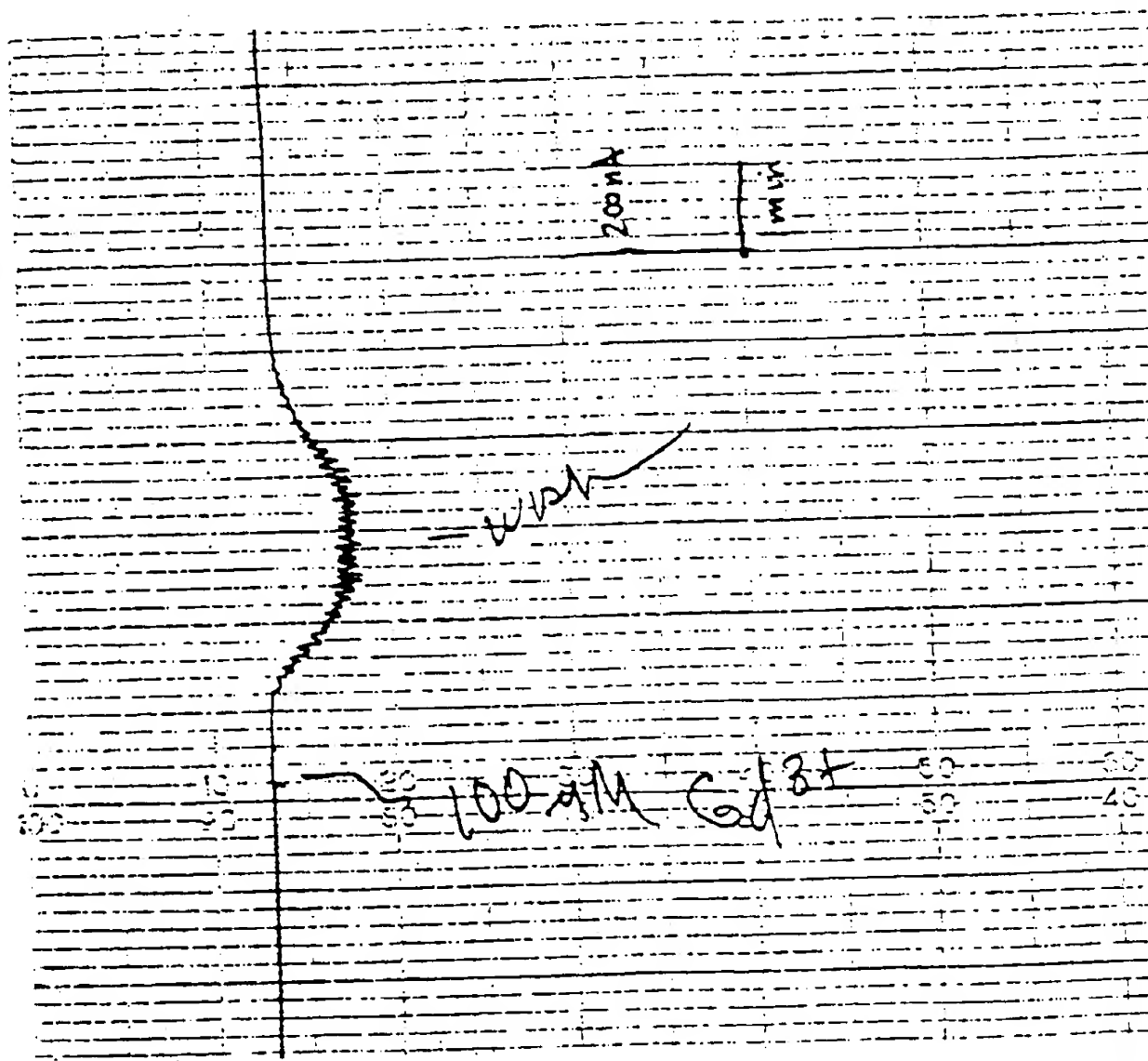
SEQ. ID. NO. 24 D T M K T G S S T N N N E E E K S R L L E K E N R E L E K I  
SEQ. ID. NO. 25

SEQ. ID. NO. 24 I A E K E E R V S E L R H Q L Q S R Q Q L R S R R H P P T P  
SEQ. ID. NO. 25

SEQ. ID. NO. 24 P D P S G G L P R G P S E P P D R L S C D G S R V H L L Y K  
SEQ. ID. NO. 25

FIGURE 8

CHART NO. 57241-9





# ClustalW Formatted Alignments

SEQ. ID. NO. 38 A T G G T A T G C G A G G G A A A G C G A T C A G  
 SEQ. ID. NO. 34 A T G G G A T C G C T G C T T G C G C T C C C G G  
 SEQ. ID. NO. 30 A T G G C A T T T T A T A G C T G C T G C T G G G  
 SEQ. ID. NO. 26 A T G G G A T C G C T G C T T G C G C T C C T G G

SEQ. ID. NO. 38 C C T C T T G C C C T T G T T T C T T C C T C T T  
 SEQ. ID. NO. 34 C A C T G C T G C T G C T G T G G G G T G C T G T  
 SEQ. ID. NO. 30 T C C T C T T G G C A C T C A C C T G G C A C A C  
 SEQ. ID. NO. 26 C A C T G C T G C C G C T G T G G G G T G C T G T

SEQ. ID. NO. 38 G A C C G C C A A G T T C T A C T G G A T C C T C  
 SEQ. ID. NO. 34 G G C T G A G G G C C C A G C C A A G A A G G T G  
 SEQ. ID. NO. 30 C T C T G C C T A C G G G C C A G A C C A G C G A  
 SEQ. ID. NO. 26 G G C T G A G G G C C C A G C C A A G A A G G T G

SEQ. ID. NO. 38 A C A A T G A T G C A A A G A A A C T C A C A G C C  
 SEQ. ID. NO. 34 C T G A C C C T G G A G G G A G A C T T G G T G C  
 SEQ. ID. NO. 30 G C C C A A A A G A A A G G G G G A C A T T A T C C  
 SEQ. ID. NO. 26 C T G A C C C T G G A G G G A G A C T T G G T G C

SEQ. ID. NO. 38 A G G A G T A T G C C C A T T C C A T A C G G G T  
 SEQ. ID. NO. 34 T G G G T G G G C T G T T C C C A G T G C A C C A  
 SEQ. ID. NO. 30 T T G G G G G G C T C T T T C C T A T T C A T T T  
 SEQ. ID. NO. 26 T G G G T G G G C T G T T C C C A G T G C A C C A

SEQ. ID. NO. 38 G G A T G G G G A C A T T A T T T T G G G G G G T  
 SEQ. ID. NO. 34 G A A G G G C G G C C C A G C A G A G G A C T G T  
 SEQ. ID. NO. 30 T G G A G T A G C A G C T A A A G A T C A A G A T  
 SEQ. ID. NO. 26 G A A G G G C G G C C C A G C A G A G G A C T G T

SEQ. ID. NO. 38 C T C T T C C C T G T C C A C G C A A A G G G A G  
 SEQ. ID. NO. 34 G G T C C T G T C A A T G A G C A C C G T G G C A  
 SEQ. ID. NO. 30 C T C A A A T C A A G G C C G G A G T C T G T G G  
 SEQ. ID. NO. 26 G G T C C T G T C A A T G A G C A C C G T G G C A

SEQ. ID. NO. 38 A G A G A G G G G T G C C T T G T G G G G A G C T  
 SEQ. ID. NO. 34 T C C A G C G C C T G G A G G C C A T G C T T T T  
 SEQ. ID. NO. 30 A A T G T A T C A G G T A T A A T T T C C G T G G  
 SEQ. ID. NO. 26 T C C A G C G C C T G G A G G C C A T G C T T T T

Figure 9a

SEQ. ID. NO. 38 G A A G A A G G A A A A G G G G A T T C A C A G A  
 SEQ. ID. NO. 34 T G C A C T G G A C C G C A T C A A C C G T G A C  
 SEQ. ID. NO. 30 G T T T C G C T G G T T A C A G G C T A T G A T A  
 SEQ. ID. NO. 26 T G C A C T G G A C C G C A T C A A C C G T G A C

SEQ. ID. NO. 38 C T G G A G G C C A T G C T T T A T G C A A T T G  
 SEQ. ID. NO. 34 C C G C A C C T G C T G C C T G G C G T G C G C C  
 SEQ. ID. NO. 30 T T T G C C A T A G A G G A G A T A A A C A G C A  
 SEQ. ID. NO. 26 C C G C A C C T G C T G C C T G G C G T G C G C C

SEQ. ID. NO. 38 A C C A G A T T A A C A A G G A C C C T G A T C T  
 SEQ. ID. NO. 34 T G G G T G C A C A C A T C C T C G A C A G T T G  
 SEQ. ID. NO. 30 G C C C A G C C C T T C T T C C C A A C T T G A C  
 SEQ. ID. NO. 26 T G G G T G C A C A C A T C C T C G A C A G T T G

SEQ. ID. NO. 38 C C T T T C C A A C A T C A C T C T G G G T G T C  
 SEQ. ID. NO. 34 C T C C A A G G A C A C A C A T G C G C T G G A G  
 SEQ. ID. NO. 30 G C T G G G A T A C A G G A T A T T T G A C A C T  
 SEQ. ID. NO. 26 C T C C A A G G A C A C A C A T G C G C T G G A G

SEQ. ID. NO. 38 C G C A T C C T C G A C A C G T G C T C T A G G G  
 SEQ. ID. NO. 34 C A G G C A C T G G A C T T T G T G C G T G C C T  
 SEQ. ID. NO. 30 T G C A A C A C C G T T T C T A A G G C C T T G G  
 SEQ. ID. NO. 26 C A G G C A C T G G A C T T T G T G C G T G C C T

SEQ. ID. NO. 38 A C A C C T A T G C T T T G G A G C A G T C T C T  
 SEQ. ID. NO. 34 C A C T C A G C C G T G G T G C T G A T G G C T C  
 SEQ. ID. NO. 30 A A G C C A C C C T G A G T T T T G T T G C T C A  
 SEQ. ID. NO. 26 C A C T C A G C C G T G G T G C T G A T G G A T C

SEQ. ID. NO. 38 A A C A T T C G T G C A G G C A T T A A T A G A G  
 SEQ. ID. NO. 34 A C G C C A C A T C T G C C C C G A C G G C T C T  
 SEQ. ID. NO. 30 A A A C A A A A T T G A T T C T T T G A A C C T T  
 SEQ. ID. NO. 26 A C G C C A C A T C T G C C C C G A C G G C T C T

SEQ. ID. NO. 38 A A A G A T G C T T C G G A T G T G A A G T G T G  
 SEQ. ID. NO. 34 T A T G C G A C C C A T G G T G A T G C T C C C A  
 SEQ. ID. NO. 30 G A T G A G T T C T G C A A C T G C T C A G A G C  
 SEQ. ID. NO. 26 T A T G C G A C C C A T G G T G A T G C T C C C A

Figure 9b

SEQ. ID. NO. 38 C T A A T G G A G A T C C A C C C A T T T T C A C  
 SEQ. ID. NO. 34 C T G C C A T C A C T G G T G T T A T T G G C G G  
 SEQ. ID. NO. 30 A C A T T C C C T C T A C G A T T G C T G T G G T  
 SEQ. ID. NO. 26 C T G C C A T C A C T G G T G T T A T T G G C G G

SEQ. ID. NO. 38 C A A G C C C G A C A A G A T T T C T G G C G T C  
 SEQ. ID. NO. 34 T T C C T A C A G T G A T G T C T C C A T C C A G  
 SEQ. ID. NO. 30 G G G A G C A A C T G G C T C A G G C G T C T C C  
 SEQ. ID. NO. 26 T T C C T A C A G T G A T G T C T C C A T C C A G

SEQ. ID. NO. 38 A T A G G T G C T G C A G C A A G C T C C G T G T  
 SEQ. ID. NO. 34 G T G G C C A A C C T C T T G A G G C T A T T T C  
 SEQ. ID. NO. 30 A C G G C A G T G G C A A A T C T G C T G G G G C  
 SEQ. ID. NO. 26 G T G G C C A A C C T C T T G A G G C T A T T T C

SEQ. ID. NO. 38 C C A T C A T G G T T G C T A A C A T T T T A A G  
 SEQ. ID. NO. 34 A G A T C C C A C A G A T T A G C T A C G C C T C  
 SEQ. ID. NO. 30 T C T T C T A C A T T C C C C A G G T C A G T T A  
 SEQ. ID. NO. 26 A G A T C C C A C A G A T T A G C T A C G C C T C

SEQ. ID. NO. 38 A C T T T T T A A G A T A C C T C A A A T C A G C  
 SEQ. ID. NO. 34 T A C C A G T G C C A A G C T G A G T G A C A A G  
 SEQ. ID. NO. 30 T G C C T C C T C C A G C A G A C T C C T C A G C  
 SEQ. ID. NO. 26 T A C C A G T G C C A A G C T G A G T G A C A A G

SEQ. ID. NO. 38 T A T G C A T C C A C A G C C C C A G A G C T A A  
 SEQ. ID. NO. 34 T C C C G C T A T G A C T A C T T T G C C C G C A  
 SEQ. ID. NO. 30 A A C A A G A A T C A A T T C A A G T C T T T C C  
 SEQ. ID. NO. 26 T C C C G C T A T G A C T A C T T T G C C C G C A

SEQ. ID. NO. 38 G T G A T A A C A C C A G G T A T G A C T T T T T  
 SEQ. ID. NO. 34 C A G T G C C T C C T G A C T T C T T C C A A G C  
 SEQ. ID. NO. 30 T C C G A A C C A T C C C C A A T G A T G A G C A  
 SEQ. ID. NO. 26 C A G T G C C T C C T G A C T T C T T C C A A G C

SEQ. ID. NO. 38 C T C T C G A G T G G T T C C G C C T G A C T C C  
 SEQ. ID. NO. 34 C A A G G C C A T G G C T G A G A T T C T C C G C  
 SEQ. ID. NO. 30 C C A G G C C A C T G C C A T G G C A G A C A T C  
 SEQ. ID. NO. 26 C A A G G C C A T G G C T G A G A T T C T C C G C

Figure 9c

SEQ. ID. NO. 38 T A C C A A G C C C A A G C C A T G G T G G A C A  
 SEQ. ID. NO. 34 T T C T T C A A C T G G A C C T A T G T G T C C A  
 SEQ. ID. NO. 30 A T C G A G T A T T T C C G C T G G A A C T G G G  
 SEQ. ID. NO. 26 T T C T T C A A C T G G A C C T A T G T G T C C A

SEQ. ID. NO. 38 T C G T G A C A G C A C T G G G A T G G A A T T A  
 SEQ. ID. NO. 34 C T G T G G C G T C T G A G G G C G A C T A T G G  
 SEQ. ID. NO. 30 T G G G C A C A A T T G C A G C T G A T G A C G A  
 SEQ. ID. NO. 26 C T G A G G C C T C T G A G G G C G A C T A T G G

SEQ. ID. NO. 38 T G T T T C G A C A C T G G C T T C T G A G G G G  
 SEQ. ID. NO. 34 C G A G A C A G G C A T T G A G G C C T T T G A G  
 SEQ. ID. NO. 30 C T A T G G G C G G C C G G G G A T T G A G A A A  
 SEQ. ID. NO. 26 C G A G A C A G G C A T T G A G G C C T T T G A G

SEQ. ID. NO. 38 A A C T A T G G T G A G A G C G G T G T G G A G G  
 SEQ. ID. NO. 34 C T A G A G G C T C G T G C C C G C A A C A T C T  
 SEQ. ID. NO. 30 T T C C G A G A G G A A G C T G A G G A A A G G G  
 SEQ. ID. NO. 26 C T A G A G G C T C G T G C C C G C A A C A T C T

SEQ. ID. NO. 38 C C T T C A C C C A G A T C T C G A G G G A G A T  
 SEQ. ID. NO. 34 G T G T G G C C A C C T C G G A G A A A G T G G G  
 SEQ. ID. NO. 30 A T A T C T G C A T C G A C T T C A G T G A A C T  
 SEQ. ID. NO. 26 G T G T G G C C A C C T C G G A G A A A G T G G G

SEQ. ID. NO. 38 T G G T G G T G T T T G C A T T G C T C A G T C A  
 SEQ. ID. NO. 34 C C G T G C C A T G A G C C G C G C G G C C T T T  
 SEQ. ID. NO. 30 C A T C T C C C A G T A C T C T G A T G A G G A A  
 SEQ. ID. NO. 26 C C G T G C C A T G A G C C G C G C G G C C T T T

SEQ. ID. NO. 38 C A G A A A A T C C C A C G T G A A C C A A G A C  
 SEQ. ID. NO. 34 G A G G G T G T G G T G C G A G C C C T G C T G C  
 SEQ. ID. NO. 30 G A G A T C C A G C A T G T G G T A G A G G T G A  
 SEQ. ID. NO. 26 G A G G G T G T G G T G C G A G C C C T G C T G C

SEQ. ID. NO. 38 C T G G A G A A T T T G A A A A A T T A T C A A  
 SEQ. ID. NO. 34 A G A A G C C C A G T G C C C G C G T G G C T G T  
 SEQ. ID. NO. 30 T T C A A A A T T C C A C G G C C A A A G T C A T  
 SEQ. ID. NO. 26 A G A A G C C C A G T G C C C G C G T G G C T G T

Figure 9d

SEQ. ID. NO. 38 A C G C C T G C T A G A A A C A C C T A A T G C T  
 SEQ. ID. NO. 34 C C T G T T C A C C C G T T C T G A G G A T G C C  
 SEQ. ID. NO. 30 C G T G G T T T T C T C C A G T G G C C C A G A T  
 SEQ. ID. NO. 26 C C T G T T C A C C C G T T C T G A G G A T G C C

SEQ. ID. NO. 38 C G A G C A G T G A T T A T G T T T G C C A A T G  
 SEQ. ID. NO. 34 C G G G A G C T G C T T G C T G C C A G C C A G C  
 SEQ. ID. NO. 30 C T T G A G C C C C T C A T C A A G G A G A T T G  
 SEQ. ID. NO. 26 C G G G A G C T G C T T G C T G C C A G C C A G C

SEQ. ID. NO. 38 A G G A T G A C A T C A G G A G G A T A T T G G A  
 SEQ. ID. NO. 34 G C C T C A A T G C C A G C T T C A C C T G G G T  
 SEQ. ID. NO. 30 T C C G G C G C A A T A T C A C G G G C A A G A T  
 SEQ. ID. NO. 26 G C C T C A A T G C C A G C T T C A C C T G G G T

SEQ. ID. NO. 38 A G C A G C A A A A A A A C T A A A C C A A A G T  
 SEQ. ID. NO. 34 G G C C A G T G A T G G T T G G G G G G C C C T G  
 SEQ. ID. NO. 30 C T G G C T G G C C A G C G A G G C C T G G G C C  
 SEQ. ID. NO. 26 G G C C A G T G A T G G T T G G G G G G C C C T G

SEQ. ID. NO. 38 G G G C A T T T T C T C T G G A T T G G C T C A G  
 SEQ. ID. NO. 34 G A G A G T G T G G T G G C A G G C A G T G A G G  
 SEQ. ID. NO. 30 A G C T C C T C C C T G A T C G C C A T G C C T C  
 SEQ. ID. NO. 26 G A G A G T G T G G T G G C A G G C A G T G A G G

SEQ. ID. NO. 38 A T A G T T G G G G A T C C A A A A T A G C A C C  
 SEQ. ID. NO. 34 G G G C T G C T G A G G G T G C T A T C A C C A T  
 SEQ. ID. NO. 30 A G T A C T T C C A C G T G G T T G G C G G C A C  
 SEQ. ID. NO. 26 G G G C T G C T G A G G G T G C T A T C A C C A T

SEQ. ID. NO. 38 T G T C T A T C A G C A A G A G G A G A T T G C A  
 SEQ. ID. NO. 34 C G A G C T G G C C T C C T A C C C C A T C A G T  
 SEQ. ID. NO. 30 C A T T G G A T T C G C T C T G A A G G C T G G G  
 SEQ. ID. NO. 26 C G A G C T G G C C T C C T A C C C C A T C A G T

SEQ. ID. NO. 38 G A A G G G G C T G T G A C A A T T T T G C C C A  
 SEQ. ID. NO. 34 G A C T T T G C C T C C T A C T T C C A G A G C C  
 SEQ. ID. NO. 30 C A G A T C C C A G G C T T C C G G G A A T T C C  
 SEQ. ID. NO. 26 G A C T T T G C C T C C T A C T T C C A G A G C C

Figure 9e

SEQ. ID. NO. 38 A A C G A G C A T C A A T T G A T G G A T T T G A  
 SEQ. ID. NO. 34 T G G A C C C T T G G A A C A A C A G C C G G A A  
 SEQ. ID. NO. 30 T G A A G A A G G T C C A T C C C A G G A A G T C  
 SEQ. ID. NO. 26 T G G A C C C T T G G A A C A A C A G C C G G A A

SEQ. ID. NO. 38 T C G A T A C T T T A G A A G C C G A A C T C T T  
 SEQ. ID. NO. 34 C C C C T G G T T C C G T G A A T T C T G G G A G  
 SEQ. ID. NO. 30 T G T C C A C A A T G G T T T T G C C A A G G A G  
 SEQ. ID. NO. 26 C C C C T G G T T C C G T G A A T T C T G G G A G

SEQ. ID. NO. 38 G C C A A T A A T C G A A G A A A T G T G T G G T  
 SEQ. ID. NO. 34 C A G A G G T T C C G C T G C A G C T T C C G G C  
 SEQ. ID. NO. 30 T T T T G G G A A G A A A C A T T T A A C T G C C  
 SEQ. ID. NO. 26 C A G A G G T T C C G C T G C A G C T T C C G G C

SEQ. ID. NO. 38 T T G C A G A A T T C T G G G A G G A G A A T T T  
 SEQ. ID. NO. 34 A G C G A G A C T G C G C A G C C C A C T C T C T  
 SEQ. ID. NO. 30 A C C T C C A A G A A G G T G C A A A A G G A C C  
 SEQ. ID. NO. 26 A G C G A G A C T G C G C A G C C C A C T C T C T

SEQ. ID. NO. 38 T G G C T G C A A G T T A G G A T C A C A T G G G  
 SEQ. ID. NO. 34 C C G G G C T G T G C C C T T T G A G C A G G A G  
 SEQ. ID. NO. 30 T T T A C C T G T G G A C A C C T T T C T G A G A  
 SEQ. ID. NO. 26 C C G G G C T G T G C C C T T T G A A C A G G A G

SEQ. ID. NO. 38 A A A A G G A A C A G T C A T A T A A A G A A A T  
 SEQ. ID. NO. 34 T C C A A G A T C A T G T T T G T G G T C A A T G  
 SEQ. ID. NO. 30 G G T C A C G A A G A A A G T G G C G A C A G G T  
 SEQ. ID. NO. 26 T C C A A G A T C A T G T T T G T G G T C A A T G

SEQ. ID. NO. 38 G C A C A G G G C T G G A G C G A A T T G C T C G  
 SEQ. ID. NO. 34 C A G T G T A C G C C A T G G C C C A T G C G C T  
 SEQ. ID. NO. 30 T T A G C A A C A G C T C G A C A G C C T T C C G  
 SEQ. ID. NO. 26 C A G T G T A C G C C A T G G C C C A T G C G C T

SEQ. ID. NO. 38 G G A T T C A T C T T A T G A A C A G G A A G G A  
 SEQ. ID. NO. 34 C C A C A A C A T G C A C C G T G C C C T C T G C  
 SEQ. ID. NO. 30 A C C C C T C T G T A C A G G G G A T G A G A A C  
 SEQ. ID. NO. 26 C C A C A A C A T G C A C C G T G C C C T C T G C

Figure 9f

SEQ. ID. NO. 38 A A G G T C C A A T T T G T A A T T G A T G C T G  
 SEQ. ID. NO. 34 C C C A A C A C C A C C C G G C T C T G T G A C G  
 SEQ. ID. NO. 30 A T C A G C A G T G T C G A G A C C C C T T A C A  
 SEQ. ID. NO. 26 C C C A A C A C C A C C C G G C T C T G T C A C G

SEQ. ID. NO. 38 T A T A T T C C A T G G C T T A C G C C C T G C A  
 SEQ. ID. NO. 34 C G A T G C G G C C A G T T A A C G G G C G C C G  
 SEQ. ID. NO. 30 T A G A T T A C A C G C A T T T A C G G A T A T C  
 SEQ. ID. NO. 26 C G A T G C G G C C A G T T A A C G G G C G C C G

SEQ. ID. NO. 38 C A A T A T G C A C A A A G A T C T C T G C C C T  
 SEQ. ID. NO. 34 C C T C T A C A A G G A C T T T G T G C T C A A C  
 SEQ. ID. NO. 30 C T A C A A T G T G T A C T T A G C A G T C T A C  
 SEQ. ID. NO. 26 C C T C T A C A A G G A C T T T G T G C T C A A C

SEQ. ID. NO. 38 G G A T A C A T T G G C C T T T G T C C A C G A A  
 SEQ. ID. NO. 34 G T C A A G T T T G A T G C C C C C T T T C G C C  
 SEQ. ID. NO. 30 T C C A T T G C C C A C G C C T T G C A A G A T A  
 SEQ. ID. NO. 26 G T C A A G T T T G A T G C C C C C T T T C G C C

SEQ. ID. NO. 38 T G A G T A C C A T T G A T G G G A A A G A G C T  
 SEQ. ID. NO. 34 C A G C T G A C A C C C A C A A T G A G G T C C G  
 SEQ. ID. NO. 30 T A T A T A C C T G C T T A C C T G G G A G A G G  
 SEQ. ID. NO. 26 C A G C T G A C A C C C A C A A T G A G G T C C G

SEQ. ID. NO. 38 A C T T G G T T A T A T T C G G G C T G T A A A T  
 SEQ. ID. NO. 34 C T T T G A C C G C T T T G G T G A T G G T A T T  
 SEQ. ID. NO. 30 G C T C T T C A C C A A T G G C T C C T G T G C A  
 SEQ. ID. NO. 26 C T T T G A C C G C T T T G G T G A T G G T A T T

SEQ. ID. NO. 38 T T T A A T G G C A G T G C T G G C A C T C C T G  
 SEQ. ID. NO. 34 G G C C G C T A C A A C A T C T T C A C C T A T C  
 SEQ. ID. NO. 30 G A C A T C A A G A A A G T T G A G G C G T G G C  
 SEQ. ID. NO. 26 G G C C G C T A C A A C A T C T T C A C C T A T C

SEQ. ID. NO. 38 T C A C T T T T A A T G A A A A C G G A G A T G C  
 SEQ. ID. NO. 34 T G C G T G C A G G C A G T G G G C G C T A T C G  
 SEQ. ID. NO. 30 A G G T C C T G A A G C A C C T A C G G C A T C T  
 SEQ. ID. NO. 26 T G C G T G C A G G C A G T G G G C G C T A T C G

Figure 9g

SEQ. ID. NO. 38 T C C T G G A C G T T A T G A T A T C T T C C A G  
 SEQ. ID. NO. 34 C T A C C A G A A G G T G G G C T A C T G G G C A  
 SEQ. ID. NO. 30 A A A C T T T A C A A A C A A T A T G G G G G A G  
 SEQ. ID. NO. 26 C T A C C A G A A G G T G G G C T A C T G G G C A

SEQ. ID. NO. 38 T A T C A A A T A A C C A A C A A A A G C A C A G  
 SEQ. ID. NO. 34 G A A G G C T T G A C T C T G G A C A C C A G C C  
 SEQ. ID. NO. 30 C A G G T G A C C T T T G A T G A G T G T G G T G  
 SEQ. ID. NO. 26 G A A G G C T T G A C T C T G G A C A C C A G C C

SEQ. ID. NO. 38 A G T A C A A A G T C A T C G G C C A C T G G A C  
 SEQ. ID. NO. 34 T C A T C C C A T G G G C C T C A C C C T C A G C  
 SEQ. ID. NO. 30 A C C T G G T G G G G A A C T A T T C C A T C A T  
 SEQ. ID. NO. 26 T C A T C C C A T G G G C C T C A C C G T C A G C

SEQ. ID. NO. 38 C A A T C A G C T T C A T C T A A A A G T G G A A  
 SEQ. ID. NO. 34 C G G C C C C C T G C C C G C C T C T C G C T G C  
 SEQ. ID. NO. 30 C A A C T G G C A C C T C T C C C C A G A G G A T  
 SEQ. ID. NO. 26 C G G C C C C C T G G C C G C C T C T C G C T G C

SEQ. ID. NO. 38 G A C A T G C A G T G G G C T C A T A G A G A A C  
 SEQ. ID. NO. 34 A G T G A G C C C T G C C T C C A G A A T G A G G  
 SEQ. ID. NO. 30 G G C T C C A T C G T G T T T A A G G A A G T C G  
 SEQ. ID. NO. 26 A G T G A G C C C T G C C T C C A G A A T G A G G

SEQ. ID. NO. 38 A T A C T C A C C C G G C G T C T G T C T G C A G  
 SEQ. ID. NO. 34 T G A A G A G T G T G C A G C C G G G C G A A G T  
 SEQ. ID. NO. 30 G G T A T T A C A A C G T C T A T G C C A A G A A  
 SEQ. ID. NO. 26 T G A A G A G T G T G C A G C C G G G C G A A G T

SEQ. ID. NO. 38 C C T G C C G T G T A A G C C A G G G G A G A G G  
 SEQ. ID. NO. 34 C T G C T G C T G G C T C T G C A T T C C G T G C  
 SEQ. ID. NO. 30 G G G A G A A A G A C T C T T C A T C A A C G A G  
 SEQ. ID. NO. 26 C T G C T G C T G G C T C T G C A T T C C G T G C

SEQ. ID. NO. 38 A A G A A A A C G G T G A A A G G G G T C C C T T  
 SEQ. ID. NO. 34 C A G C C C T A T G A G T A C C G A T T G G A C G  
 SEQ. ID. NO. 30 G A G A A A A T C C T G T G G A G T G G G T T C T  
 SEQ. ID. NO. 26 C A G C C C T A T G A G T A C C G A T T G G A C G

Figure 9h



SEQ. ID. NO. 38 G C T G C T G G C A C T G T G A A C G C T G T G A  
 SEQ. ID. NO. 34 A A T T C A C T T G C G C T G A T T G T G G C C T  
 SEQ. ID. NO. 30 C C A G G G A G G T G C C C T T C T C C A A C T G  
 SEQ. ID. NO. 26 A A T T C A C T T G C G C T G A T T G T G G C C T

SEQ. ID. NO. 38 A G G T T A C A A C T A C C A G G T G G A T G A G  
 SEQ. ID. NO. 34 G G G C T A C T G G C C C A A T G C C A G C C T G  
 SEQ. ID. NO. 30 C A G C C G A G A C T G C C T G G C A G G G A C C  
 SEQ. ID. NO. 26 G G G C T A C T G G C C C A A T G C C A G C C T G

SEQ. ID. NO. 38 C T G T C C T G T G A A C T T T G C C C T C T G G  
 SEQ. ID. NO. 34 A C T G G C T G C T T C G A A C T G C C C C A G G  
 SEQ. ID. NO. 30 A G G A A A G G G A T C A T T G A G G G G G A G C  
 SEQ. ID. NO. 26 A C T G G C T G C T T C G A A C T G C C C C A G G

SEQ. ID. NO. 38 A T C A G A G A C C C A A C A T G A A C C G C A C  
 SEQ. ID. NO. 34 A G T A C A T C C G C T G G G G C G A T G C C T G  
 SEQ. ID. NO. 30 C C A C C T G C T G C T T T G A G T G T G T G G A  
 SEQ. ID. NO. 26 A G T A C A T C C G C T G G G G C G A T G C C T G

SEQ. ID. NO. 38 A G G C T G C C A G C T T A T C C C C A T C A T C  
 SEQ. ID. NO. 34 G G C T G T G G G A C C T G T C A C C A T C G C C  
 SEQ. ID. NO. 30 G T G T C C T G A T G G G G A G T A T A G T G A T  
 SEQ. ID. NO. 26 G G C T G T G G G A C C T G T C A C C A T C G C C

SEQ. ID. NO. 38 A A A T T G G A G T G G C A T T C T C C C T G G G  
 SEQ. ID. NO. 34 T G C C T C G G T G C C C T G G C C A C C C T C T  
 SEQ. ID. NO. 30 G A G A C A G A T G C C A G T G C C T G T A A C A  
 SEQ. ID. NO. 26 T G C C T C G G T G C C C T G G C C A C C C T G T

SEQ. ID. NO. 38 C T G T G G T G C C T G T G T T T G T T G C A A T  
 SEQ. ID. NO. 34 T T G T G C T G G G T G T C T T T G T G C G G C A  
 SEQ. ID. NO. 30 A G T G C C C A G A T G A C T T C T G G T C C A A  
 SEQ. ID. NO. 26 T T G T G C T G G G T G T C T T T G T G C G G C A

SEQ. ID. NO. 38 A T T G G G A A T C A T C G C C A C C A C C T T T  
 SEQ. ID. NO. 34 C A A T G C C A C A C C A G T G G T C A A G G C C  
 SEQ. ID. NO. 30 T G A G A A C C A C A C C T C C T G C T T C G A A  
 SEQ. ID. NO. 26 C A A T G C C A C A C C A G T G G T C A A G G C C

Figure 9i

SEQ. ID. NO. 38 G T G A T C G T G A C C T T T G T C C G C T A T A  
 SEQ. ID. NO. 34 T C A G G T C G G G A G C T C T G C T A C A T C C  
 SEQ. ID. NO. 30 C T G C C C C A G G A G T A C A T C C G C T G G G  
 SEQ. ID. NO. 26 T C A G G T C G G G A G C T C T G C T A C A T C C

SEQ. ID. NO. 38 A T G A C A C A C C T A T C G T G A G G G C T T C  
 SEQ. ID. NO. 34 T G C T G G G T G G T G T C T T C C T C T G C T A  
 SEQ. ID. NO. 30 G C G A T G C C T G G G C T G T G G G A C C T G T  
 SEQ. ID. NO. 26 T G C T G G G T G G T G T C T T C C T C T G C T A

SEQ. ID. NO. 38 A G G A C G C G A A C T T A G T T A C G T G C T C  
 SEQ. ID. NO. 34 C T G C A T G A C C T T C A T C T T C A T T G C C  
 SEQ. ID. NO. 30 C A C C A T C G C C T G C C T C G G T G C C C T G  
 SEQ. ID. NO. 26 C T G C A T G A C C T T C A T C T T C A T T G C C

SEQ. ID. NO. 38 C T A A C G G G G A T T T T T C T C T G T T A T T  
 SEQ. ID. NO. 34 A A G C C A T C C A C G G C A G T G T G T A C C T  
 SEQ. ID. NO. 30 G C C A C C C T G T T T G T G C T G G G T G T C T  
 SEQ. ID. NO. 26 A A G C C A T C C A C G G C A G T G T G T A C C T

SEQ. ID. NO. 38 C A A T C A C G T T T T T A A T G A T T G C A G C  
 SEQ. ID. NO. 34 T A C G G C G T C T T G G T T T G G G C A C T G C  
 SEQ. ID. NO. 30 T T G T G C G G C A C A A T G C C A C A C C A G T  
 SEQ. ID. NO. 26 T A C G G C G T C T T G G T T T G G G C A C T G C

SEQ. ID. NO. 38 A C C A G A T A C A A T C A T A T G C T C C T T C  
 SEQ. ID. NO. 34 C T T C T C T G T C T G C T A C T C A G C C C T G  
 SEQ. ID. NO. 30 G G T C A A G G C C T C A G G T C G G G A G C T C  
 SEQ. ID. NO. 26 C T T C T C T G T C T G C T A C T C A G C C C T G

SEQ. ID. NO. 38 C G A C G G G T C T T C C T A G G A C T T G G C A  
 SEQ. ID. NO. 34 C T C A C C A A G A C C A A C C G C A T T G C A C  
 SEQ. ID. NO. 30 T G C T A C A T C C T G C T G G G T G G T G T C T  
 SEQ. ID. NO. 26 C T C A C C A A G A C C A A C C G C A T T G C A C

SEQ. ID. NO. 38 T G T G T T T C A G C T A T G C A G C C C T T C T  
 SEQ. ID. NO. 34 G C A T C T T C G G T G G G G C C C G G G A G G G  
 SEQ. ID. NO. 30 T C C T C T G C T A C T G C A T G A C C T T C A T  
 SEQ. ID. NO. 26 G C A T C T T C G G T G G G G C C C G G G A G G G

Figure 9j

SEQ. ID. NO. 38 G A C C A A A A C A A A C C G T A T C C A C C G A  
 SEQ. ID. NO. 34 T G C C C A G C G G C C A C G C T T C A T C A G T  
 SEQ. ID. NO. 30 C T T C A T T G C C A A G C C A T C C A C G G C A  
 SEQ. ID. NO. 26 T G C C C A G C G G C C A C G C T T C A T C A G T

SEQ. ID. NO. 38 A T A T T T G A G C A G G G G A A G A A A T C T G  
 SEQ. ID. NO. 34 C C T G C C T C A C A G G T G G C C A T C T G C C  
 SEQ. ID. NO. 30 G T G T G T A C C T T A C G G C G T C T T G G T T  
 SEQ. ID. NO. 26 C C T G C C T C A C A G G T G G C C A T C T G C C

SEQ. ID. NO. 38 T C A C A G C G C C C A A G T T C A T T A G T C C  
 SEQ. ID. NO. 34 T G G C A C T T A T C T C G G G C C A G C T G C T  
 SEQ. ID. NO. 30 T G G G C A C T G C C T T C T C T G T C T G C T A  
 SEQ. ID. NO. 26 T G G C A C T T A T C T C G G G C C A G C T G C T

SEQ. ID. NO. 38 A G C A T C T C A G C T G G T G A T C A C C T T C  
 SEQ. ID. NO. 34 C A T C G T G G T C G C C T G G C T G G T G G T G  
 SEQ. ID. NO. 30 C T C A G C C C T G C T C A C C A A G A C C A A C  
 SEQ. ID. NO. 26 C A T C G T G G T C G C C T G G C T G G T G G T G

SEQ. ID. NO. 38 A G C C T C A T C T C C G T C C A G C T C C T T G  
 SEQ. ID. NO. 34 G A G G C A C C G G G C A C A G G C A A G G A G A  
 SEQ. ID. NO. 30 C G C A T T G C A C G C A T C T T C G G T G G G G  
 SEQ. ID. NO. 26 G A G G C A C C G G G C A C A G G C A A G G A G A

SEQ. ID. NO. 38 G A G T G T T T G T C T G G T T T G T T G T G G A  
 SEQ. ID. NO. 34 C A G C C C C C G A A C G G C G G G A G G T G G T  
 SEQ. ID. NO. 30 C C C G G G A G G G T G C C C A G C G G C C A C G  
 SEQ. ID. NO. 26 C A G C C C C C G A A C G G C G G G A G G T G G T

SEQ. ID. NO. 38 T C C C C C C C A C A T C A T C A T T G A C T A T  
 SEQ. ID. NO. 34 G A C A C T G C G C T G C A A C C A C C G C G A T  
 SEQ. ID. NO. 30 C T T C A T C A G T C C T G C C T C A C A G G T G  
 SEQ. ID. NO. 26 G A C A C T G C G C T G C A A C C A C C G C G A T

SEQ. ID. NO. 38 G G A G A G C A G C G G A C A C T A G A T C C A G  
 SEQ. ID. NO. 34 G C A A G T A T G T T G G G C T C G C T G G C C T  
 SEQ. ID. NO. 30 G C C A T C T G C C T G G C A C T T A T C T C G G  
 SEQ. ID. NO. 26 G C A A G T A T G T T G G G C T C G C T G G C C T

Figure 9k

SEQ. ID. NO. 38 A G A A G G C C A G G G G A G T G C T C A A G T G  
 SEQ. ID. NO. 34 A C A A T G T G C T C C T C A T C G C G C T C T G  
 SEQ. ID. NO. 30 G C C A G C T G C T C A T C G T G G T C G C C T G  
 SEQ. ID. NO. 26 A C A A T G T G C T C C T C A T C G C G C T C T G

SEQ. ID. NO. 38 T G A C A T T T C T G A T C T C T C A C T C A T T  
 SEQ. ID. NO. 34 C A C G C T T T A T G C C T T C A A G A C T C G C  
 SEQ. ID. NO. 30 G C T G G T G G T G G A G G C A C C G G G C A C A  
 SEQ. ID. NO. 26 C A C G C T T T A T G C C T T C A A T A C T C G C

SEQ. ID. NO. 38 T G T T C A C T T G G A T A C A G T A T C C T C T  
 SEQ. ID. NO. 34 A A G T G C C C C G A A A A C T T C A A C G A G G  
 SEQ. ID. NO. 30 G G C A A G G A G A C A G C C C C C G A A C G G C  
 SEQ. ID. NO. 26 A A G T G C C C C G A A A A C T T C A A C G A G G

SEQ. ID. NO. 38 T G A T G G T C A C T T G T A C T G T T T A T G C  
 SEQ. ID. NO. 34 C C A A G T T C A T T G G C T T C A C C A T G T A  
 SEQ. ID. NO. 30 G G G A G G T G G T G A C A C T G C G C T G C A A  
 SEQ. ID. NO. 26 C C A A G T T C A T T G G C T T C A C C A T G T A

SEQ. ID. NO. 38 C A T T A A A A C G A G A G G T G T C C C A G A G  
 SEQ. ID. NO. 34 C A C C A C C T G C A T C A T C T G G C T G G C A  
 SEQ. ID. NO. 30 C C A C C G C G A T G C A A G T A T G T T G G G C  
 SEQ. ID. NO. 26 C A C C A C C T G C A T C A T C T G G C T G G C A

SEQ. ID. NO. 38 A C T T T C A A T G A A G C C A A A C C T A T T G  
 SEQ. ID. NO. 34 T T C C T G C C C A T C T T C T A T G T C A C C T  
 SEQ. ID. NO. 30 T C G C T G G C C T A C A A T G T G C T C C T C A  
 SEQ. ID. NO. 26 T T G T T G C C C A T C T T C T A T G T C A C C T

SEQ. ID. NO. 38 G A T T T A C C A T G T A T A C C A C C T G C A T  
 SEQ. ID. NO. 34 C C A G T G A C T A C C G G G T A C A G A C C A C  
 SEQ. ID. NO. 30 T C G C G C T C T G C A C G C T T T A T G C C T T  
 SEQ. ID. NO. 26 C C A G T G A C T A C C G G G T A C A G A C C A C

SEQ. ID. NO. 38 C A T T T G G T T A G C T T T C A T C C C C A T C  
 SEQ. ID. NO. 34 C A C C A T G T G C G T G T C A G T C A G C C T C  
 SEQ. ID. NO. 30 C A A T A C T C G C A A G T G C C C C G A A A A C  
 SEQ. ID. NO. 26 C A C C A T G T G C G T G T C A G T C A G C C T C

Figure 91

SEQ. ID. NO. 38 T T T T T T G G T A C A G C C C A G T C A G C A G  
 SEQ. ID. NO. 34 A G C G G C T C C G T G G T G C T T G G C T G C C  
 SEQ. ID. NO. 30 T T C A A C G A G G C C A A G T T C A T T G G C T  
 SEQ. ID. NO. 26 A G C G G C T C C G T G G T G C T T G G C T G C C

SEQ. ID. NO. 38 A A A A G A T G T A C A T C C A G A C A A C A A C  
 SEQ. ID. NO. 34 T C T T T G C G C C C A A G C T G C A C A T C A T  
 SEQ. ID. NO. 30 T C A C C A T G T A C A C C A C C T G C A T C A T  
 SEQ. ID. NO. 26 T C T T T G C G C C C A A G C T G C A C A T C A T

SEQ. ID. NO. 38 A C T T A C T G T C T C C A T G A G T T T A A G T  
 SEQ. ID. NO. 34 C C T C T T C C A G C C G C A G A A G A A C A C C  
 SEQ. ID. NO. 30 C T G G C T G G C A T T G T T G C C C A T C T T C  
 SEQ. ID. NO. 26 C C T C T T C C A G C C G C A G A A G A A C G T G

SEQ. ID. NO. 38 G C T T C A G T A T C T C T G G G C A T G C T C T  
 SEQ. ID. NO. 34 A T C G A G G A G G T G C G T T G C A G C A C C G  
 SEQ. ID. NO. 30 T A T G T C A C C T C C A G T G A C T A C C G G G  
 SEQ. ID. NO. 26 G T T A G C C A C C G G G C A C C C A C C A G C C

SEQ. ID. NO. 38 A T A T G C C C A A G G T T T A T A T T A T A A T  
 SEQ. ID. NO. 34 C A G C T C A C G C T T T C A A G G T G G C T G C  
 SEQ. ID. NO. 30 T A C A G A C C A C C A C C A T G T G C G T G T C  
 SEQ. ID. NO. 26 G C T T T G G C A G T G C T G C T G C C A G G G C

SEQ. ID. NO. 38 T T T T C A T C C A G A A C A G A A T A C C A T C  
 SEQ. ID. NO. 34 C C G G G C C A C G C T G C G C C G C A G C A A C  
 SEQ. ID. NO. 30 A G T C A G C C T C A G C G G C T C C G T G G T G  
 SEQ. ID. NO. 26 C A G C T C C A G C C T T G G C C A A G G G T C T

SEQ. ID. NO. 38 G A G G A G G T G C G T T G C A G C A C C G C A G  
 SEQ. ID. NO. 34 G T C T C C C G C A A G C G G T C C A G C A G C C  
 SEQ. ID. NO. 30 C T T G G C T G C C T C T T T G C G C C C A A G C  
 SEQ. ID. NO. 26 G G C T C C C A G T T T G T C C C C A C T G T T T

SEQ. ID. NO. 38 C T C A C G C T T T C A A G G T G G C T G C C C G  
 SEQ. ID. NO. 34 T T G G A G G C T C C A C G G G A T C C A C C C C  
 SEQ. ID. NO. 30 T G C A C A T C A T C C T C T T C C A G C C G C A  
 SEQ. ID. NO. 26 G C A A T G G C C G T G A G G T G G T G G A C T C

Figure 9m

SEQ. ID. NO. 38 G G C C A C G C T G C G C C G C A G C A A C G T C  
 SEQ. ID. NO. 34 C T C C T C C T C C A T C A G C A G C A A G A G C  
 SEQ. ID. NO. 30 G A A G A A C G T G G T T A G C C A C C G G G C A  
 SEQ. ID. NO. 26 G A C A A C G T C A T C G C T T

SEQ. ID. NO. 38 T C C C G C A A G C G G T C C A G C A G C C T T G  
 SEQ. ID. NO. 34 A A C A G C G A A G A C C C A T T C C C A C A G C  
 SEQ. ID. NO. 30 C C C A C C A G C C G C T T T G G C A G T G C T G  
 SEQ. ID. NO. 26

SEQ. ID. NO. 38 G A G G C T C C A C G G G A T C C A C C C C C T C  
 SEQ. ID. NO. 34 C C G A G A G G C A G A A G C A G C A G C A G C C  
 SEQ. ID. NO. 30 C T G C C A G G G C C A G C T C C A G C C T T G G  
 SEQ. ID. NO. 26

SEQ. ID. NO. 38 C T C C T C C A T C A G C A G C A A G A G C A A C  
 SEQ. ID. NO. 34 G C T G G C C C T A A C C C A G C A A G A G C A G  
 SEQ. ID. NO. 30 C C A A G G G T C T G G C T C C C A G T T T G T C  
 SEQ. ID. NO. 26

SEQ. ID. NO. 38 A G C G A A G A C C C A T T C C C A C A G C C C G  
 SEQ. ID. NO. 34 C A G C A G C A G C C C C T G A C C C T C C C A C  
 SEQ. ID. NO. 30 C C C A C T G T T T G C A A T G G C C G T G A G G  
 SEQ. ID. NO. 26

SEQ. ID. NO. 38 A G A G G C A G A A G C A G C A G C A G C C G C T  
 SEQ. ID. NO. 34 A G C A G C A A C G A T C T C A G C A G C A G C C  
 SEQ. ID. NO. 30 T G G T G G A C T C G A C A A C G T C A T C G C T  
 SEQ. ID. NO. 26

SEQ. ID. NO. 38 G G C C C T A A C C C A G C A A G A G C A G C A G  
 SEQ. ID. NO. 34 C A G A T G C A A G C A G A A G G T C A T C T T T  
 SEQ. ID. NO. 30 T  
 SEQ. ID. NO. 26

SEQ. ID. NO. 38 C A G C A G C C C C T G A C C C T C C C A C A G C  
 SEQ. ID. NO. 34 G G C A G C G G C A C G G T C A C C T T C T C A C  
 SEQ. ID. NO. 30  
 SEQ. ID. NO. 26

Figure 9n

SEQ. ID. NO. 38 A G C A A C G A T C T C A G C A G C A G C C C A G  
 SEQ. ID. NO. 34 T G A G C T T T G A T G A G C C T C A G A A G A A  
 SEQ. ID. NO. 30  
 SEQ. ID. NO. 26

SEQ. ID. NO. 38 A T G C A A G C A G A A G G T C A T C T T T G G C  
 SEQ. ID. NO. 34 C G C C A T G G C C C A C G G G A A T T C T A C G  
 SEQ. ID. NO. 30  
 SEQ. ID. NO. 26

SEQ. ID. NO. 38 A G C G G C A C G G T C A C C T T C T C A C T G A  
 SEQ. ID. NO. 34 C A C C A G A A C T C C C T G G A G G C C C A G A  
 SEQ. ID. NO. 30  
 SEQ. ID. NO. 26

SEQ. ID. NO. 38 G C T T T G A T G A G C C T C A G A A G A A C G C  
 SEQ. ID. NO. 34 A A A G C A G C G A T A C G C T G A C C C G A C A  
 SEQ. ID. NO. 30  
 SEQ. ID. NO. 26

SEQ. ID. NO. 38 C A T G G C C C A C G G G A A T T C T A C G C A C  
 SEQ. ID. NO. 34 C C A G C C A T T A C T C C C G C T G C A G T G C  
 SEQ. ID. NO. 30  
 SEQ. ID. NO. 26

SEQ. ID. NO. 38 C A G A A C T C C C T G G A G G C C C A G A A A A  
 SEQ. ID. NO. 34 G G G G A A A C G G A C T T A G A T C T G A C C G  
 SEQ. ID. NO. 30  
 SEQ. ID. NO. 26

SEQ. ID. NO. 38 G C A G C G A T A C G C T G A C C C G A C A C C A  
 SEQ. ID. NO. 34 T C C A G G A A A C A G G T C T G C A A G G A C C  
 SEQ. ID. NO. 30  
 SEQ. ID. NO. 26

SEQ. ID. NO. 38 G C C A T T A C T C C C G C T G C A G T G C G G G  
 SEQ. ID. NO. 34 T G T G G G T G G A G A C C A G C G G C C A G A G  
 SEQ. ID. NO. 30  
 SEQ. ID. NO. 26

Figure 9o

SEQ. ID. NO. 38 G A A A C G G A C T T A G A T C T G A C C G T C C  
SEQ. ID. NO. 34 G T G G A G G A C C C T G A A G A G T T G T C C C  
SEQ. ID. NO. 30  
SEQ. ID. NO. 26

SEQ. ID. NO. 38 A G G A A A C A G G T C T G C A A G G A C C T G T  
SEQ. ID. NO. 34 C A G C A C T T G T A G T G T C C A G T T C A C A  
SEQ. ID. NO. 30  
SEQ. ID. NO. 26

SEQ. ID. NO. 38 G G G T G G A G A C C A G C G G C C A G A G G T G  
SEQ. ID. NO. 34 G A G C T T T G T C A T C A G T G G T G G A G G C  
SEQ. ID. NO. 30  
SEQ. ID. NO. 26

SEQ. ID. NO. 38 G A G G A C C C T G A A G A G T T G T C C C C A G  
SEQ. ID. NO. 34 A G C A C T G T T A C A G A A A A C G T A G T G A  
SEQ. ID. NO. 30  
SEQ. ID. NO. 26

SEQ. ID. NO. 38 C A C T T G T A G T G T C C A G T T C A C A G A G  
SEQ. ID. NO. 34 A T T C A  
SEQ. ID. NO. 30  
SEQ. ID. NO. 26

SEQ. ID. NO. 38 C T T T G T C A T C A G T G G T G G A G G C A G C  
SEQ. ID. NO. 34  
SEQ. ID. NO. 30  
SEQ. ID. NO. 26

SEQ. ID. NO. 38 A C T G T T A C A G A A A A C G T A G T G A A T T  
SEQ. ID. NO. 34  
SEQ. ID. NO. 30  
SEQ. ID. NO. 26

SEQ. ID. NO. 38 C A  
SEQ. ID. NO. 34  
SEQ. ID. NO. 30  
SEQ. ID. NO. 26

Figure 9p



# ClustalW Formatted Alignments

SEQ. ID. NO. 39 M V C E G K R S A S C P C F F L L T A K F Y W I L  
 SEQ. ID. NO. 35 M G S L L A L P A L L L L W G A V A E G P A K K V  
 SEQ. ID. NO. 31 M A F Y S C C W V L L A L T W H T S A Y G P D Q R  
 SEQ. ID. NO. 27 M G S L L A L L A L L L P L W G A V A E G P A K K V

SEQ. ID. NO. 39 T M M Q R T H S Q E Y A H S I R V D G D I I L G G  
 SEQ. ID. NO. 35 L T L E G D L V L G G L F P V H Q K G G P A E D C  
 SEQ. ID. NO. 31 A Q K K G D I I L G G L F P I H F G V A A K D Q D  
 SEQ. ID. NO. 27 L T L E G D L V L G G L F P V H Q K G G P A E D C

SEQ. ID. NO. 39 L F P V H A K G E R G V P C G E L K K E K G I H R  
 SEQ. ID. NO. 35 G P V N E H R G I Q R L E A M L F A L D R I N R D  
 SEQ. ID. NO. 31 L K S R P E S V E C I R Y N F R G F R W L Q A M I  
 SEQ. ID. NO. 27 G P V N E H R G I Q R L E A M L F A L D R I N R D

SEQ. ID. NO. 39 L E A M L Y A I D Q I N K D P D L L S N I T L G V  
 SEQ. ID. NO. 35 P H L L P G V R L G A H I L D S C S K D T H A L E  
 SEQ. ID. NO. 31 F A I E E I N S S P A L L P N L T L G Y R I F D T  
 SEQ. ID. NO. 27 P H L L P G V R L G A H I L D S C S K D T H A L E

SEQ. ID. NO. 39 R I L D T C S R D T Y A L E Q S L T F V Q A L I E  
 SEQ. ID. NO. 35 Q A L D F V R A S L S R G A D G S R H I C P D G S  
 SEQ. ID. NO. 31 C N T V S K A L E A T L S F V A Q N K I D S L N L  
 SEQ. ID. NO. 27 Q A L D F V R A S L S R G A D G S R H I C P D G S

SEQ. ID. NO. 39 K D A S D V K C A N G D P P I F T K P D K I S G V  
 SEQ. ID. NO. 35 Y A T H G D A P T A I T G V I G G S Y S D V S I Q  
 SEQ. ID. NO. 31 D E F C N C S E H I P S T I A V V G A T G S G V S  
 SEQ. ID. NO. 27 Y A T H G D A P T A I T G V I G G S Y S D V S I Q

SEQ. ID. NO. 39 I G A A A S S V S I M V A N I L R L F K I P Q I S  
 SEQ. ID. NO. 35 V A N L L R L F Q I P Q I S Y A S T S A K L S D K  
 SEQ. ID. NO. 31 T A V A N L L G L F Y I P Q V S Y A S S S R L L S  
 SEQ. ID. NO. 27 V A N L L R L F Q I P Q I S Y A S T S A K L S D K

SEQ. ID. NO. 39 Y A S T A P E L S D N T R Y D F F S R V V P P D S  
 SEQ. ID. NO. 35 S R Y D Y F A R T V P P D F F Q A K A M A E I L R  
 SEQ. ID. NO. 31 N K N Q F K S F L R T I P N D E H Q A T A M A D I  
 SEQ. ID. NO. 27 S R Y D Y F A R T V P P D F F Q A K A M A E I L R

Figure 10a

SEQ. ID. NO. 39 YQAQAMVDIVTALGWNYVSTLASEG  
 SEQ. ID. NO. 35 FFNWTYVSTVASEGDYGETGIEAFE  
 SEQ. ID. NO. 31 IEYFRWNWVGTTAAADDDYGRPGIEK  
 SEQ. ID. NO. 27 FFNWTYVSTEASEGDYGETGIEAFE

SEQ. ID. NO. 39 NYGESGVEAFTQISREIGGVCI AQ S  
 SEQ. ID. NO. 35 LEARARNICVATSEKVGGRAMSRAAF  
 SEQ. ID. NO. 31 FREEAEERDICIDFSELISQYSDEE  
 SEQ. ID. NO. 27 LEARARNICVATSEKVGGRAMSRAAF

SEQ. ID. NO. 39 QKIPREPRPGEFEKI IKRLLLETPNA  
 SEQ. ID. NO. 35 EGVVRALLQKPSARVAVLFTRSEDA  
 SEQ. ID. NO. 31 EIQHVVEVIQNSTAKVIVVFSSGPD  
 SEQ. ID. NO. 27 EGVVRALLQKPSARVAVLFTRSEDA

SEQ. ID. NO. 39 RAVIMFANEDDIRRILEAAKKLNQS  
 SEQ. ID. NO. 35 REL LAASQRLNASFTWVASDGGW GAL  
 SEQ. ID. NO. 31 LEPLIKEIVRRNITGKIWLASEAWA  
 SEQ. ID. NO. 27 REL LAASQRLNASFTWVASDGGW GAL

SEQ. ID. NO. 39 GHFLWIGSDSWGSKIAPVYQQEEIA  
 SEQ. ID. NO. 35 ESVVAGSEGA AEGAITIELASYPIS  
 SEQ. ID. NO. 31 SSSLIAMPQYFHVVG GTIGFALKAG  
 SEQ. ID. NO. 27 ESVVAGSEGA AEGAITIELASYPIS

SEQ. ID. NO. 39 EGAVTILPKRASIDGFDRYFRSRTL  
 SEQ. ID. NO. 35 DFASYFQSLDPWNNNSRNPWFREFWE  
 SEQ. ID. NO. 31 QIPGFRFLKKVHPRKSVHNGFAKE  
 SEQ. ID. NO. 27 DFASYFQSLDPWNNNSRNPWFREFWE

SEQ. ID. NO. 39 ANNRRNVWF AEFEW EENFGCKLGSHG  
 SEQ. ID. NO. 35 QRFRC SFRQRDCAAHSLRAVPFEQE  
 SEQ. ID. NO. 31 FWEETFNCHLQEGAKGPLPVD TFLR  
 SEQ. ID. NO. 27 QRFRC SFRQRDCAAHSLRAVPFEQE

SEQ. ID. NO. 39 KRNSHIKKCTGLERI ARDSSSYEQEG  
 SEQ. ID. NO. 35 SKIMFVVNAVYAMAHALHNMHRALC  
 SEQ. ID. NO. 31 GHEESGDRFSNSSTA FRPLCTGDEN  
 SEQ. ID. NO. 27 SKIMFVVNAVYAMAHALHNMHRALC

Figure 10b

SEQ. ID. NO. 39 K V Q F V I D A V Y S M A Y A L H N M H K D L C P  
 SEQ. ID. NO. 35 P N T T R L C D A M R P V N G R R L Y K D F V L N  
 SEQ. ID. NO. 31 I S S V E T P Y I D Y T H L R I S Y N V Y L A V Y  
 SEQ. ID. NO. 27 P N T T R L C D A M R P V N G R R L Y K D F V L N

SEQ. ID. NO. 39 G Y I G L C P R M S T I D G K E L L G Y I R A V N  
 SEQ. ID. NO. 35 V K F D A P F R P A D T H N E V R F D R F G D G I  
 SEQ. ID. NO. 31 S I A H A L Q D I Y T C L P G R G L F T N G S C A  
 SEQ. ID. NO. 27 V K F D A P F R P A D T H N E V R F D R F G D G I

SEQ. ID. NO. 39 F N G S A G T P V T F N E N G D A P G R Y D I F Q  
 SEQ. ID. NO. 35 G R Y N I F T Y L R A G S G R Y R Y Q K V G Y W A  
 SEQ. ID. NO. 31 D I K K V E A W Q V L K H L R H L N F T N N M G E  
 SEQ. ID. NO. 27 G R Y N I F T Y L R A G S G R Y R Y Q K V G Y W A

SEQ. ID. NO. 39 Y Q I T N K S T E Y K V I G H W T N Q L H L K V E  
 SEQ. ID. NO. 35 E G L T L D T S L I P W A S P S A G P L P A S R C  
 SEQ. ID. NO. 31 Q V T F D E C G D L V G N Y S I I N W H L S P E D  
 SEQ. ID. NO. 27 E G L T L D T S L I P W A S P S A G P L A A S R C

SEQ. ID. NO. 39 D M Q W A H R E H T H P A S V C S L P C K P G E R  
 SEQ. ID. NO. 35 S E P C L Q N E V K S V Q P G E V C C W L C I P C  
 SEQ. ID. NO. 31 G S I V F K E V G Y Y N V Y A K K G E R L F I N E  
 SEQ. ID. NO. 27 S E P C L Q N E V K S V Q P G E V C C W L C I P C

SEQ. ID. NO. 39 K K T V K G V P C C W H C E R C E G Y N Y Q V D E  
 SEQ. ID. NO. 35 Q P Y E Y R L D E F T C A D C G L G Y W P N A S L  
 SEQ. ID. NO. 31 E K I L W S G F S R E V P F S N C S R D C L A G T  
 SEQ. ID. NO. 27 Q P Y E Y R L D E F T C A D C G L G Y W P N A S L

SEQ. ID. NO. 39 L S C E L C P L D Q R P N M N R T G C Q L I P I I  
 SEQ. ID. NO. 35 T G C F E L P Q E Y I R W G D A W A V G P V T I A  
 SEQ. ID. NO. 31 R K G I I E G E P T C C F E C V E C P D G E Y S D  
 SEQ. ID. NO. 27 T G C F E L P Q E Y I R W G D A W A V G P V T I A

SEQ. ID. NO. 39 K L E W H S P W A V V P V F V A I L G I I A T T F  
 SEQ. ID. NO. 35 C L G A L A T L F V L G V F V R H N A T P V V K A  
 SEQ. ID. NO. 31 E T D A S A C N K C P D D F W S N E N H T S C F E  
 SEQ. ID. NO. 27 C L G A L A T L F V L G V F V R H N A T P V V K A

Figure 10c

SEQ. ID. NO. 39 V I V T F V R Y N D T P I V R A S G R E L S Y V L  
 SEQ. ID. NO. 35 S G R E L C Y I L L G G V F L C Y C M T F I F I A  
 SEQ. ID. NO. 31 L P Q E Y I R W G D A W A V G P V T I A C L G A L  
 SEQ. ID. NO. 27 S G R E L C Y I L L G G V F L C Y C M T F I F I A

SEQ. ID. NO. 39 L T G I F L C Y S I T F L M I A A P D T I I C S F  
 SEQ. ID. NO. 35 K P S T A V C T L R R L G L G T A F S V C Y S A L  
 SEQ. ID. NO. 31 A T L F V L G V F V R H N A T P V V K A S G R E L  
 SEQ. ID. NO. 27 K P S T A V C T L R R L G L G T A F S V C Y S A L

SEQ. ID. NO. 39 R R V F L G L G M C F S Y A A L L T K T N R I H R  
 SEQ. ID. NO. 35 L T K T N R I A R I F G G A R E G A Q R P R F I S  
 SEQ. ID. NO. 31 C Y I L L G G V F L C Y C M T F I F I A K P S T A  
 SEQ. ID. NO. 27 L T K T N R I A R I F G G A R E G A Q R P R F I S

SEQ. ID. NO. 39 I F E Q G K K S V T A P K F I S P A S Q L V I T F  
 SEQ. ID. NO. 35 P A S Q V A I C L A L I S G Q L L I V V A W L V V  
 SEQ. ID. NO. 31 V C T L R R L G L G T A F S V C Y S A L L T K T N  
 SEQ. ID. NO. 27 P A S Q V A I C L A L I S G Q L L I V V A W L V V

SEQ. ID. NO. 39 S L I S V Q L L G V F V W F V V D P P H I I I D Y  
 SEQ. ID. NO. 35 E A P G T G K E T A P E R R E V V T L R C N H R D  
 SEQ. ID. NO. 31 R I A R I F G G A R E G A Q R P R F I S P A S Q V  
 SEQ. ID. NO. 27 E A P G T G K E T A P E R R E V V T L R C N H R D

SEQ. ID. NO. 39 G E Q R T L D P E K A R G V L K C D I S D L S L I  
 SEQ. ID. NO. 35 A S M L G S L A Y N V L L I A L C T L Y A F K T R  
 SEQ. ID. NO. 31 A I C L A L I S G Q L L I V V A W L V V E A P G T  
 SEQ. ID. NO. 27 A S M L G S L A Y N V L L I A L C T L Y A F N T R

SEQ. ID. NO. 39 C S L G Y S I L L M V T C T V Y A I K T R G V P E  
 SEQ. ID. NO. 35 K C P E N F N E A K F I G F T M Y T T C I I W L A  
 SEQ. ID. NO. 31 G K E T A P E R R E V V T L R C N H R D A S M L G  
 SEQ. ID. NO. 27 K C P E N F N E A K F I G F T M Y T T C I I W L A

SEQ. ID. NO. 39 T F N E A K P I G F T M Y T T C I I W L A F I P I  
 SEQ. ID. NO. 35 F L P I F Y V T S S D Y R V Q T T T M C V S V S L  
 SEQ. ID. NO. 31 S L A Y N V L L I A L C T L Y A F N T R K C P E N  
 SEQ. ID. NO. 27 L L P I F Y V T S S D Y R V Q T T T M C V S V S L

Figure 10d

SEQ. ID. NO. 39 F F G T A Q S A E K M Y I Q T T T L T V S M S L S  
 SEQ. ID. NO. 35 S G S V V L G C L F A P K L H I I L F Q P Q K N T  
 SEQ. ID. NO. 31 F N E A K F I G F T M Y T T C I I W L A L L P I F  
 SEQ. ID. NO. 27 S G S V V L G C L F A P K L H I I L F Q P Q K N

SEQ. ID. NO. 39 A S V S L G M L Y M P K V Y I I I F H P E Q N T I  
 SEQ. ID. NO. 35 I E E V R C S T A A H A F K V A A R A T L R R S N  
 SEQ. ID. NO. 31 Y V T S S D Y R V Q T T T M C V S V S L S G S V V  
 SEQ. ID. NO. 27

SEQ. ID. NO. 39 E E V R C S T A A H A F K V A A R A T L R R S N V  
 SEQ. ID. NO. 35 V S R K R S S S L G G S T G S T P S S S I S S K S  
 SEQ. ID. NO. 31 L G C L F A P K L H I I L F Q P Q K N V V S H R A  
 SEQ. ID. NO. 27

SEQ. ID. NO. 39 S R K R S S S L G G S T G S T P S S S I S S K S N  
 SEQ. ID. NO. 35 N S E D P F P Q P E R Q K Q Q Q P L A L T Q Q E Q  
 SEQ. ID. NO. 31 P T S R F G S A A A R A S S S L G Q G S G S Q F V  
 SEQ. ID. NO. 27

SEQ. ID. NO. 39 S E D P F P Q P E R Q K Q Q Q P L A L T Q Q E Q Q  
 SEQ. ID. NO. 35 Q Q Q P L T L P Q Q Q R S Q Q Q P R C K Q K V I F  
 SEQ. ID. NO. 31 P T V C N G R E V V D S T T S S L  
 SEQ. ID. NO. 27

SEQ. ID. NO. 39 Q Q P L T L P Q Q Q R S Q Q Q P R C K Q K V I F G  
 SEQ. ID. NO. 35 G S G T V T F S L S F D E P Q K N A M A H G N S T  
 SEQ. ID. NO. 31  
 SEQ. ID. NO. 27

SEQ. ID. NO. 39 S G T V T F S L S F D E P Q K N A M A H G N S T H  
 SEQ. ID. NO. 35 H Q N S L E A Q K S S D T L T R H Q P L L P L Q C  
 SEQ. ID. NO. 31  
 SEQ. ID. NO. 27

SEQ. ID. NO. 39 Q N S L E A Q K S S D T L T R H Q P L L P L Q C G  
 SEQ. ID. NO. 35 G E T D L D L T V Q E T G L Q G P V G G D Q R P E  
 SEQ. ID. NO. 31  
 SEQ. ID. NO. 27

Figure 10e

SEQ. ID. NO. 39 E T D L D L T V Q E T G L Q G P V G G D Q R P E V  
SEQ. ID. NO. 35 V E D P E E L S P A L V V S S S Q S F V I S G G G  
SEQ. ID. NO. 31  
SEQ. ID. NO. 27

SEQ. ID. NO. 39 E D P E E L S P A L V V S S S Q S F V I S G G G S  
SEQ. ID. NO. 35 S T V T E N V V N S  
SEQ. ID. NO. 31  
SEQ. ID. NO. 27

SEQ. ID. NO. 39 T V T E N V V N S  
SEQ. ID. NO. 35  
SEQ. ID. NO. 31  
SEQ. ID. NO. 27

# ClustalW Formatted Alignments

SEQ. ID. NO. 40 A T G G T A T G C G A G G G A A A G C G A T C A G  
 SEQ. ID. NO. 46 A T G G G A T C G C T G C T T G C G C T C C C G G  
 SEQ. ID. NO. 36 A T G G G A T C G C T G C T T G C G C T C C C G G  
 SEQ. ID. NO. 32 A T G G C A T T T T A T A G C T G C T G C T G G G

SEQ. ID. NO. 40 C C T C T T G C C C T T G T T T C T T C C T C T T  
 SEQ. ID. NO. 46 C A C T G C T G C T G C T G T G G G G T G C T G T  
 SEQ. ID. NO. 36 C A C T G C T G C T G C T G T G G G G T G C T G T  
 SEQ. ID. NO. 32 T C C T C T T G G C A C T C A C C T G G C A C A C

SEQ. ID. NO. 40 G A C C G C C A A G T T C T A C T G G A T C C T C  
 SEQ. ID. NO. 46 G G C T G A G G G C C C A G C C A A G A A G G T G  
 SEQ. ID. NO. 36 G G C T G A G G G C C C A G C C A A G A A G G T G  
 SEQ. ID. NO. 32 C T C T G C C T A C G G G C C A G A C C A G C G A

SEQ. ID. NO. 40 A C A A T G A T G C A A A G A A C T C A C A G C C  
 SEQ. ID. NO. 46 C T G A C C C T G G A G G G A G A C T T G G T G C  
 SEQ. ID. NO. 36 C T G A C C C T G G A G G G A G A C T T G G T G C  
 SEQ. ID. NO. 32 G C C C A A A A G A A G G G G G A C A T T A T C C

SEQ. ID. NO. 40 A G G A G T A T G C C C A T T C C A T A C G G G T  
 SEQ. ID. NO. 46 T G G G T G G G C T G T T C C C A G T G C A C C A  
 SEQ. ID. NO. 36 T G G G T G G G C T G T T C C C A G T G C A C C A  
 SEQ. ID. NO. 32 T T G G G G G G C T C T T T C C T A T T C A T T T

SEQ. ID. NO. 40 G G A T G G G G A C A T T A T T T T G G G G G G T  
 SEQ. ID. NO. 46 G A A G G G C G G C C C A G C A G A G G A C T G T  
 SEQ. ID. NO. 36 G A A G G G C G G C C C A G C A G A G G A C T G T  
 SEQ. ID. NO. 32 T G G A G T A G C A G C T A A A G A T C A A G A T

SEQ. ID. NO. 40 C T C T T C C C T G T C C A C G C A A A G G G A G  
 SEQ. ID. NO. 46 G G T C C T G T C A A T G A G C A C C G T G G C A  
 SEQ. ID. NO. 36 G G T C C T G T C A A T G A G C A C C G T G G C A  
 SEQ. ID. NO. 32 C T C A A A T C A A G G C C G G A G T C T G T G G

SEQ. ID. NO. 40 A G A G A G G G G T G C C T T G T G G G G A G C T  
 SEQ. ID. NO. 46 T C C A G C G C C T G G A G G C C A T G C T T T T  
 SEQ. ID. NO. 36 T C C A G C G C C T G G A G G C C A T G C T T T T  
 SEQ. ID. NO. 32 A A T G T A T C A G G T A T A A T T T C C G T G G

Figure 11a

SEQ. ID. NO. 40 G A A G A A G G A A A A G G G G A T T C A C A G A  
 SEQ. ID. NO. 46 T G C A C T G G A C C G C A T C A A C C G T G A C  
 SEQ. ID. NO. 36 T G C A C T G G A C C G C A T C A A C C G T G A C  
 SEQ. ID. NO. 32 G T T T C G C T G G T T A C A G G C T A T G A T A

SEQ. ID. NO. 40 C T G G A G G C C A T G C T T T A T G C A A T T G  
 SEQ. ID. NO. 46 C C G C A C C T G C T G C C T G G C G T G C G C C  
 SEQ. ID. NO. 36 C C G C A C C T G C T G C C T G G C G T G C G C C  
 SEQ. ID. NO. 32 T T T G C C A T A G A G G A G A T A A A C A G C A

SEQ. ID. NO. 40 A C C A G A T T A A C A A G G A C C C T G A T C T  
 SEQ. ID. NO. 46 T G G G T G C A C A C A T C C T C G A C A G T T G  
 SEQ. ID. NO. 36 T G G G T G C A C A C A T C C T C G A C A G T T G  
 SEQ. ID. NO. 32 G C C C A G C C C T T C T T C C C A A C T T G A C

SEQ. ID. NO. 40 C C T T T C C A A C A T C A C T C T G G G T G T C  
 SEQ. ID. NO. 46 C T C C A A G G A C A C A C A T G C G C T G G A G  
 SEQ. ID. NO. 36 C T C C A A G G A C A C A C A T G C G C T G G A G  
 SEQ. ID. NO. 32 G C T G G G A T A C A G G A T A T T T G A C A C T

SEQ. ID. NO. 40 C G C A T C C T C G A C A C G T G C T C T A G G G  
 SEQ. ID. NO. 46 C A G G C A C T G G A C T T T G T G C G T G C C T  
 SEQ. ID. NO. 36 C A G G C A C T G G A C T T T G T G C G T G C C T  
 SEQ. ID. NO. 32 T G C A A C A C C G T T T C T A A G G C C T T G G

SEQ. ID. NO. 40 A C A C C T A T G C T T T G G A G C A G T C T C T  
 SEQ. ID. NO. 46 C A C T C A G C C G T G G T G C T G A T G G C T C  
 SEQ. ID. NO. 36 C A C T C A G C C G T G G T G C T G A T G G C T C  
 SEQ. ID. NO. 32 A A G C C A C C C T G A G T T T T G T T G C T C A

SEQ. ID. NO. 40 A A C A T T C G T G C A G G C A T T A A T A G A G  
 SEQ. ID. NO. 46 A C G C C A C A T C T G C C C C G A C G G C T C T  
 SEQ. ID. NO. 36 A C G C C A C A T C T G C C C C G A C G G C T C T  
 SEQ. ID. NO. 32 A A A C A A A A T T G A T T C T T T G A A C C T T

SEQ. ID. NO. 40 A A A G A T G C T T C G G A T G T G A A G T G T G  
 SEQ. ID. NO. 46 T A T G C G A C C C A T G G T G A T G C T C C C A  
 SEQ. ID. NO. 36 T A T G C G A C C C A T G G T G A T G C T C C C A  
 SEQ. ID. NO. 32 G A T G A G T T C T G C A A C T G C T C A G A G C

Figure 11b



SEQ. ID. NO. 40 C T A A T G G A G A T C C A C C C A T T T T C A C  
 SEQ. ID. NO. 46 C T G C C A T C A C T G G T G T T A T T G G C G G  
 SEQ. ID. NO. 36 C T G C C A T C A C T G G T G T T A T T G G C G G  
 SEQ. ID. NO. 32 A C A T T C C C T C T A C G A T T G C T G T G G T

SEQ. ID. NO. 40 C A A G C C C G A C A A G A T T T C T G G C G T C  
 SEQ. ID. NO. 46 T T C C T A C A G T G A T G T C T C C A T C C A G  
 SEQ. ID. NO. 36 T T C C T A C A G T G A T G T C T C C A T C C A G  
 SEQ. ID. NO. 32 G G G A G C A A C T G G C T C A G G C G T C T C C

SEQ. ID. NO. 40 A T A G G T G C T G C A G C A A G C T C C G T G T  
 SEQ. ID. NO. 46 G T G G C C A A C C T C T T G A G G C T A T T T C  
 SEQ. ID. NO. 36 G T G G C C A A C C T C T T G A G G C T A T T T C  
 SEQ. ID. NO. 32 A C G G C A G T G G C A A A T C T G C T G G G G C

SEQ. ID. NO. 40 C C A T C A T G G T T G C T A A C A T T T T A A G  
 SEQ. ID. NO. 46 A G A T C C C A C A G A T T A G C T A C G C C T C  
 SEQ. ID. NO. 36 A G A T C C C A C A G A T T A G C T A C G C C T C  
 SEQ. ID. NO. 32 T C T T C T A C A T T C C C C A G G T C A G T T A

SEQ. ID. NO. 40 A C T T T T T A A G A T A C C T C A A A T C A G C  
 SEQ. ID. NO. 46 T A C C A G T G C C A A G C T G A G T G A C A A G  
 SEQ. ID. NO. 36 T A C C A G T G C C A A G C T G A G T G A C A A G  
 SEQ. ID. NO. 32 T G C C T C C T C C A G C A G A C T C C T C A G C

SEQ. ID. NO. 40 T A T G C A T C C A C A G C C C C A G A G C T A A  
 SEQ. ID. NO. 46 T C C C G C T A T G A C T A C T T T G C C C G C A  
 SEQ. ID. NO. 36 T C C C G C T A T G A C T A C T T T G C C C G C A  
 SEQ. ID. NO. 32 A A C A A G A A T C A A T T C A A G T C T T T C C

SEQ. ID. NO. 40 G T G A T A A C A C C A G G T A T G A C T T T T T  
 SEQ. ID. NO. 46 C A G T G C C T C C T G A C T T C T T C C A A G C  
 SEQ. ID. NO. 36 C A G T G C C T C C T G A C T T C T T C C A A G C  
 SEQ. ID. NO. 32 T C C G A A C C A T C C C C A A T G A T G A G C A

SEQ. ID. NO. 40 C T C T C G A G T G G T T C C G C C T G A C T C C  
 SEQ. ID. NO. 46 C A A G G C C A T G G C T G A G A T T C T C C G C  
 SEQ. ID. NO. 36 C A A G G C C A T G G C T G A G A T T C T C C G C  
 SEQ. ID. NO. 32 C C A G G C C A C T G C C A T G G C A G A C A T C

Figure 11c

SEQ. ID. NO. 40 T A C C A A G C C C A A G C C A T G G T G G A C A  
 SEQ. ID. NO. 46 T T C T T C A A C T G G A C C T A T G T G T C C A  
 SEQ. ID. NO. 36 T T C T T C A A C T G G A C C T A T G T G T C C A  
 SEQ. ID. NO. 32 A T C G A G T A T T T C C G C T G G A A C T G G G

SEQ. ID. NO. 40 T C G T G A C A G C A C T G G G A T G G A A T T A  
 SEQ. ID. NO. 46 C T G T G G C G T C T G A G G G C G A C T A T G G  
 SEQ. ID. NO. 36 C T G T G G C G T C T G A G G G C G A C T A T G G  
 SEQ. ID. NO. 32 T G G G C A C A A T T G C A G C T G A T G A C G A

SEQ. ID. NO. 40 T G T T T C G A C A C T G G C T T C T G A G G G G  
 SEQ. ID. NO. 46 C G A G A C A G G C A T T G A G G C C T T T G A G  
 SEQ. ID. NO. 36 C G A G A C A G G C A T T G A G G C C T T T G A G  
 SEQ. ID. NO. 32 C T A T G G G C G G C C G G G G A T T G A G A A A

SEQ. ID. NO. 40 A A C T A T G G T G A G A G C G G T G T G G A G G  
 SEQ. ID. NO. 46 C T A G A G G C T C G T G C C C G C A A C A T C T  
 SEQ. ID. NO. 36 C T A G A G G C T C G T G C C C G C A A C A T C T  
 SEQ. ID. NO. 32 T T C C G A G A G G A A G C T G A G G A A A G G G

SEQ. ID. NO. 40 C C T T C A C C C A G A T C T C G A G G G A G A T  
 SEQ. ID. NO. 46 G T G T G G C C A C C T C G G A G A A A G T G G G  
 SEQ. ID. NO. 36 G T G T G G C C A C C T C G G A G A A A G T G G G  
 SEQ. ID. NO. 32 A T A T C T G C A T C G A C T T C A G T G A A C T

SEQ. ID. NO. 40 T G G T G G T G T T T G C A T T G C T C A G T C A  
 SEQ. ID. NO. 46 C C G T G C C A T G A G C C G C G C G G C C T T T  
 SEQ. ID. NO. 36 C C G T G C C A T G A G C C G C G C G G C C T T T  
 SEQ. ID. NO. 32 C A T C T C C C A G T A C T C T G A T G A G G A A

SEQ. ID. NO. 40 C A G A A A A T C C C A C G T G A A C C A A G A C  
 SEQ. ID. NO. 46 G A G G G T G T G G T G C G A G C C C T G C T G C  
 SEQ. ID. NO. 36 G A G G G T G T G G T G C G A G C C C T G C T G C  
 SEQ. ID. NO. 32 G A G A T C C A G C A T G T G G T A G A G G T G A

SEQ. ID. NO. 40 C T G G A G A A T T T G A A A A A T T A T C A A  
 SEQ. ID. NO. 46 A G A A G C C C A G T G C C C G C G T G G C T G T  
 SEQ. ID. NO. 36 A G A A G C C C A G T G C C C G C G T G G C T G T  
 SEQ. ID. NO. 32 T T C A A A A T T C C A C G G C C A A A G T C A T

Figure 11d

SEQ. ID. NO. 40 A C G C C T G C T A G A A A C A C C T A A T G C T  
 SEQ. ID. NO. 46 C C T G T T C A C C C G T T C T G A G G A T G C C  
 SEQ. ID. NO. 36 C C T G T T C A C C C G T T C T G A G G A T G C C  
 SEQ. ID. NO. 32 C G T G G T T T T C T C C A G T G G C C C A G A T

SEQ. ID. NO. 40 C G A G C A G T G A T T A T G T T T G C C A A T G  
 SEQ. ID. NO. 46 C G G G A G C T G C T T G C T G C C A G C C A G C  
 SEQ. ID. NO. 36 C G G G A G C T G C T T G C T G C C A G C C A G C  
 SEQ. ID. NO. 32 C T T G A G C C C C T C A T C A A G G A G A T T G

SEQ. ID. NO. 40 A G G A T G A C A T C A G G A G G A T A T T G G A  
 SEQ. ID. NO. 46 G C C T C A A T G C C A G C T T C A C C T G G G T  
 SEQ. ID. NO. 36 G C C T C A A T G C C A G C T T C A C C T G G G T  
 SEQ. ID. NO. 32 T C C G G C G C A A T A T C A C G G G C A A G A T

SEQ. ID. NO. 40 A G C A G C A A A A A A C T A A A C C A A A G T  
 SEQ. ID. NO. 46 G G C C A G T G A T G G T T G G G G G G C C C T G  
 SEQ. ID. NO. 36 G G C C A G T G A T G G T T G G G G G G C C C T G  
 SEQ. ID. NO. 32 C T G G C T G G C C A G C G A G G C C T G G G C C

SEQ. ID. NO. 40 G G G C A T T T T C T C T G G A T T G G C T C A G  
 SEQ. ID. NO. 46 G A G A G T G T G G T G G C A G G C A G T G A G G  
 SEQ. ID. NO. 36 G A G A G T G T G G T G G C A G G C A G T G A G G  
 SEQ. ID. NO. 32 A G C T C C T C C C T G A T C G C C A T G C C T C

SEQ. ID. NO. 40 A T A G T T G G G G A T C C A A A A T A G C A C C  
 SEQ. ID. NO. 46 G G G C T G C T G A G G G T G C T A T C A C C A T  
 SEQ. ID. NO. 36 G G G C T G C T G A G G G T G C T A T C A C C A T  
 SEQ. ID. NO. 32 A G T A C T T C C A C G T G G T T G G C G G C A C

SEQ. ID. NO. 40 T G T C T A T C A G C A A G A G G A G A T T G C A  
 SEQ. ID. NO. 46 C G A G C T G G C C T C C T A C C C C A T C A G T  
 SEQ. ID. NO. 36 C G A G C T G G C C T C C T A C C C C A T C A G T  
 SEQ. ID. NO. 32 C A T T G G A T T C G C T C T G A A G G C T G G G

SEQ. ID. NO. 40 G A A G G G G C T G T G A C A A T T T T G C C C A  
 SEQ. ID. NO. 46 G A C T T T G C C T C C T A C T T C C A G A G C C  
 SEQ. ID. NO. 36 G A C T T T G C C T C C T A C T T C C A G A G C C  
 SEQ. ID. NO. 32 C A G A T C C C A G G C T T C C G G G A A T T C C

Figure 11e

SEQ. ID. NO. 40 A A C G A G C A T C A A T T G A T G G A T T T G A  
 SEQ. ID. NO. 46 T G G A C C C T T G G A A C A A C A G C C G G A A  
 SEQ. ID. NO. 36 T G G A C C C T T G G A A C A A C A G C C G G A A  
 SEQ. ID. NO. 32 T G A A G A A G G T C C A T C C C A G G A A G T C

SEQ. ID. NO. 40 T C G A T A C T T T A G A A G C C G A A C T C T T  
 SEQ. ID. NO. 46 C C C C T G G T T C C G T G A A T T C T G G G A G  
 SEQ. ID. NO. 36 C C C C T G G T T C C G T G A A T T C T G G G A G  
 SEQ. ID. NO. 32 T G T C C A C A A T G G T T T T G C C A A G G A G

SEQ. ID. NO. 40 G C C A A T A A T C G A A G A A A T G T G T G G T  
 SEQ. ID. NO. 46 C A G A G G T T C C G C T G C A G C T T C C G G C  
 SEQ. ID. NO. 36 C A G A G G T T C C G C T G C A G C T T C C G G C  
 SEQ. ID. NO. 32 T T T T G G G A A G A A A C A T T T A A C T G C C

SEQ. ID. NO. 40 T T G C A G A A T T C T G G G A G G A G A A T T T  
 SEQ. ID. NO. 46 A G C G A G A C T G C G C A G C C C A C T C T C T  
 SEQ. ID. NO. 36 A G C G A G A C T G C G C A G C C C A C T C T C T  
 SEQ. ID. NO. 32 A C C T C C A A G A A G G T G C A A A A G G A C C

SEQ. ID. NO. 40 T G G C T G C A A G T T A G G A T C A C A T G G G  
 SEQ. ID. NO. 46 C C G G G C T G T G C C C T T T G A G C A G G A G  
 SEQ. ID. NO. 36 C C G G G C T G T G C C C T T T G A G C A G G A G  
 SEQ. ID. NO. 32 T T T A C C T G T G G A C A C C T T T C T G A G A

SEQ. ID. NO. 40 A A A A G G A A C A G T C A T A T A A A G A A A T  
 SEQ. ID. NO. 46 T C C A A G A T C A T G T T T G T G G T C A A T G  
 SEQ. ID. NO. 36 T C C A A G A T C A T G T T T G T G G T C A A T G  
 SEQ. ID. NO. 32 G G T C A C G A A G A A A G T G G C G A C A G G T

SEQ. ID. NO. 40 G C A C A G G G C T G G A G C G A A T T G C T C G  
 SEQ. ID. NO. 46 C A G T G T A C G C C A T G G C C C A T G C G C T  
 SEQ. ID. NO. 36 C A G T G T A C G C C A T G G C C C A T G C G C T  
 SEQ. ID. NO. 32 T T A G C A A C A G C T C G A C A G C C T T C C G

SEQ. ID. NO. 40 G G A T T C A T C T T A T G A A C A G G A A G G A  
 SEQ. ID. NO. 46 C C A C A A C A T G C A C C G T G C C C T C T G C  
 SEQ. ID. NO. 36 C C A C A A C A T G C A C C G T G C C C T C T G C  
 SEQ. ID. NO. 32 A C C C C T C T G T A C A G G G G A T G A G A A C

Figure 11f

SEQ. ID. NO. 40 A A G G T C C A A T T T G T A A T T G A T G C T G  
 SEQ. ID. NO. 46 C C C A A C A C C A C C C G G C T C T G T G A C G  
 SEQ. ID. NO. 36 C C C A A C A C C A C C C G G C T C T G T G A C G  
 SEQ. ID. NO. 32 A T C A G C A G T G T C G A G A C C C C T T A C A

SEQ. ID. NO. 40 T A T A T T C C A T G G C T T A C G C C C T G C A  
 SEQ. ID. NO. 46 C G A T G C G G C C A G T T A A C G G G C G C C G  
 SEQ. ID. NO. 36 C G A T G C G G C C A G T T A A C G G G C G C C G  
 SEQ. ID. NO. 32 T A G A T T A C A C G C A T T T A C G G A T A T C

SEQ. ID. NO. 40 C A A T A T G C A C A A A G A T C T C T G C C C T  
 SEQ. ID. NO. 46 C C T C T A C A A G G A C T T T G T G C T C A A C  
 SEQ. ID. NO. 36 C C T C T A C A A G G A C T T T G T G C T C A A C  
 SEQ. ID. NO. 32 C T A C A A T G T G T A C T T A G C A G T C T A C

SEQ. ID. NO. 40 G G A T A C A T T G G C C T T T G T C C A C G A A  
 SEQ. ID. NO. 46 G T C A A G T T T G A T G C C C C C T T T C G C C  
 SEQ. ID. NO. 36 G T C A A G T T T G A T G C C C C C T T T C G C C  
 SEQ. ID. NO. 32 T C C A T T G C C C A C G C C T T G C A A G A T A

SEQ. ID. NO. 40 T G A G T A C C A T T G A T G G G A A A G A G C T  
 SEQ. ID. NO. 46 C A G C T G A C A C C C A C A A T G A G G T C C G  
 SEQ. ID. NO. 36 C A G C T G A C A C C C A C A A T G A G G T C C G  
 SEQ. ID. NO. 32 T A T A T A C C T G C T T A C C T G G G A G A G G

SEQ. ID. NO. 40 A C T T G G T T A T A T T C G G G C T G T A A A T  
 SEQ. ID. NO. 46 C T T T G A C C G C T T T G G T G A T G G T A T T  
 SEQ. ID. NO. 36 C T T T G A C C G C T T T G G T G A T G G T A T T  
 SEQ. ID. NO. 32 G C T C T T C A C C A A T G G C T C C T G T G C A

SEQ. ID. NO. 40 T T T A A T G G C A G T G C T G G C A C T C C T G  
 SEQ. ID. NO. 46 G G C C G C T A C A A C A T C T T C A C C T A T C  
 SEQ. ID. NO. 36 G G C C G C T A C A A C A T C T T C A C C T A T C  
 SEQ. ID. NO. 32 G A C A T C A A G A A A G T T G A G G C G T G G C

SEQ. ID. NO. 40 T C A C T T T T A A T G A A A A C G G A G A T G C  
 SEQ. ID. NO. 46 T G C G T G C A G G C A G T G G G C G C T A T C G  
 SEQ. ID. NO. 36 T G C G T G C A G G C A G T G G G C G C T A T C G  
 SEQ. ID. NO. 32 A G G T C C T G A A G C A C C T A C G G C A T C T

Figure 11g

SEQ. ID. NO. 40 T C C T G G A C G T T A T G A T A T C T T C C A G  
 SEQ. ID. NO. 46 C T A C C A G A A G G T G G G C T A C T G G G C A  
 SEQ. ID. NO. 36 C T A C C A G A A G G T G G G C T A C T G G G C A  
 SEQ. ID. NO. 32 A A A C T T T A C A A A C A A T A T G G G G G A G

SEQ. ID. NO. 40 T A T C A A A T A A C C A A C A A A A G C A C A G  
 SEQ. ID. NO. 46 G A A G G C T T G A C T C T G G A C A C C A G C C  
 SEQ. ID. NO. 36 G A A G G C T T G A C T C T G G A C A C C A G C C  
 SEQ. ID. NO. 32 C A G G T G A C C T T T G A T G A G T G T G G T G

SEQ. ID. NO. 40 A G T A C A A A G T C A T C G G C C A C T G G A C  
 SEQ. ID. NO. 46 T C A T C C C A T G G G C C T C A C C C T C A G C  
 SEQ. ID. NO. 36 T C A T C C C A T G G G C C T C A C C C T C A G C  
 SEQ. ID. NO. 32 A C C T G G T G G G G A A C T A T T C C A T C A T

SEQ. ID. NO. 40 C A A T C A G C T T C A T C T A A A A G T G G A A  
 SEQ. ID. NO. 46 C G G C C C C C T G C C C G C C T C T C G C T G C  
 SEQ. ID. NO. 36 C G G C C C C C T G C C C G C C T C T C G C T G C  
 SEQ. ID. NO. 32 C A A C T G G C A C C T C T C C C C A G A G G A T

SEQ. ID. NO. 40 G A C A T G C A G T G G G C T C A T A G A G A A C  
 SEQ. ID. NO. 46 A G T G A G C C C T G C C T C C A G A A T G A G G  
 SEQ. ID. NO. 36 A G T G A G C C C T G C C T C C A G A A T G A G G  
 SEQ. ID. NO. 32 G G C T C C A T C G T G T T T A A G G A A G T C G

SEQ. ID. NO. 40 A T A C T C A C C C G G C G T C T G T C T G C A G  
 SEQ. ID. NO. 46 T G A A G A G T G T G C A G C C G G G C G A A G T  
 SEQ. ID. NO. 36 T G A A G A G T G T G C A G C C G G G C G A A G T  
 SEQ. ID. NO. 32 G G T A T T A C A A C G T C T A T G C C A A G A A

SEQ. ID. NO. 40 C C T G C C G T G T A A G C C A G G G G A G A G G  
 SEQ. ID. NO. 46 C T G C T G C T G G C T C T G C A T T C C G T G C  
 SEQ. ID. NO. 36 C T G C T G C T G G C T C T G C A T T C C G T G C  
 SEQ. ID. NO. 32 G G G A G A A A G A C T C T T C A T C A A C G A G

SEQ. ID. NO. 40 A A G A A A A C G G T G A A A G G G G T C C C T T  
 SEQ. ID. NO. 46 C A G C C C T A T G A G T A C C G A T T G G A C G  
 SEQ. ID. NO. 36 C A G C C C T A T G A G T A C C G A T T G G A C G  
 SEQ. ID. NO. 32 G A G A A A A T C C T G T G G A G T G G G T T C T

Figure 11h

SEQ. ID. NO. 40 G C T G C T G G C A C T G T G A A C G C T G T G A  
 SEQ. ID. NO. 46 A A T T C A C T T G C G C T G A T T G T G G C C T  
 SEQ. ID. NO. 36 A A T T C A C T T G C G C T G A T T G T G G C C T  
 SEQ. ID. NO. 32 C C A G G G A G G T G C C C T T C T C C A A C T G

SEQ. ID. NO. 40 A G G T T A C A A C T A C C A G G T G G A T G A G  
 SEQ. ID. NO. 46 G G G C T A C T G G C C C A A T G C C A G C C T G  
 SEQ. ID. NO. 36 G G G C T A C T G G C C C A A T G C C A G C C T G  
 SEQ. ID. NO. 32 C A G C C G A G A C T G C C T G G C A G G G A C C

SEQ. ID. NO. 40 C T G T C C T G T G A A C T T T G C C C T C T G G  
 SEQ. ID. NO. 46 A C T G G C T G C T T C G A A C T G C C C C A G G  
 SEQ. ID. NO. 36 A C T G G C T G C T T C G A A C T G C C C C A G G  
 SEQ. ID. NO. 32 A G G A A A G G G A T C A T T G A G G G G G A G C

SEQ. ID. NO. 40 A T C A G A G A C C C A A C A T G A A C C G C A C  
 SEQ. ID. NO. 46 A G T A C A T C C G C T G G G G C G A T G C C T G  
 SEQ. ID. NO. 36 A G T A C A T C C G C T G G G G C G A T G C C T G  
 SEQ. ID. NO. 32 C C A C C T G C T G C T T T G A G T G T G T G G A

SEQ. ID. NO. 40 A G G C T G C C A G C T T A T C C C C A T C A T C  
 SEQ. ID. NO. 46 G G C T G T G G G A C C T G T C A C C A T C G C C  
 SEQ. ID. NO. 36 G G C T G T G G G A C C T G T C A C C A T C G C C  
 SEQ. ID. NO. 32 G T G T C C T G A T G G G G A G T A T A G T G A T

SEQ. ID. NO. 40 A A A T T G G A G T G G C A T T C T C C C T G G G  
 SEQ. ID. NO. 46 T G C C T C G G T G C C C T G G C C A C C C T C T  
 SEQ. ID. NO. 36 T G C C T C G G T G C C C T G G C C A C C C T C T  
 SEQ. ID. NO. 32 G A G A C A G A T G C C A G T G C C T G T A A C A

SEQ. ID. NO. 40 C T G T G G T G C C T G T G T T T G T T G C A A T  
 SEQ. ID. NO. 46 T T G T G C T G G G T G T C T T T G T G C G G C A  
 SEQ. ID. NO. 36 T T G T G C T G G G T G T C T T T G T G C G G C A  
 SEQ. ID. NO. 32 A G T G C C C A G A T G A C T T C T G G T C C A A

SEQ. ID. NO. 40 A T T G G G A A T C A T C G C C A C C A C C T T T  
 SEQ. ID. NO. 46 C A A T G C C A C A C C A G T G G T C A A G G C C  
 SEQ. ID. NO. 36 C A A T G C C A C A C C A G T G G T C A A G G C C  
 SEQ. ID. NO. 32 T G A G A A C C A C A C C T C C T G C T T C G A A

Figure 11i

SEQ. ID. NO. 40 G T G A T C G T G A C C T T T G T C C G C T A T A  
 SEQ. ID. NO. 46 T C A G G T C G G G A G C T C T G C T A C A T C C  
 SEQ. ID. NO. 36 T C A G G T C G G G A G C T C T G C T A C A T C C  
 SEQ. ID. NO. 32 C T G C C C C A G G A G T A C A T C C G C T G G G

SEQ. ID. NO. 40 A T G A C A C A C C T A T C G T G A G G G C T T C  
 SEQ. ID. NO. 46 T G C T G G G T G G T G T C T T C C T C T G C T A  
 SEQ. ID. NO. 36 T G C T G G G T G G T G T C T T C C T C T G C T A  
 SEQ. ID. NO. 32 G C G A T G C C T G G G C T G T G G G A C C T G T

SEQ. ID. NO. 40 A G G A C G C G A A C T T A G T T A C G T G C T C  
 SEQ. ID. NO. 46 C T G C A T G A C C T T C A T C T T C A T T G C C  
 SEQ. ID. NO. 36 C T G C A T G A C C T T C A T C T T C A T T G C C  
 SEQ. ID. NO. 32 C A C C A T C G C C T G C C T C G G T G C C C T G

SEQ. ID. NO. 40 C T A A C G G G G A T T T T T C T C T G T T A T T  
 SEQ. ID. NO. 46 A A G C C A T C C A C G G C A G T G T G T A C C T  
 SEQ. ID. NO. 36 A A G C C A T C C A C G G C A G T G T G T A C C T  
 SEQ. ID. NO. 32 G C C A C C C T G T T T G T G C T G G G T G T C T

SEQ. ID. NO. 40 C A A T C A C G T T T T T A A T G A T T G C A G C  
 SEQ. ID. NO. 46 T A C G G C G T C T T G G T T T G G G C A C T G C  
 SEQ. ID. NO. 36 T A C G G C G T C T T G G T T T G G G C A C T G C  
 SEQ. ID. NO. 32 T T G T G C G G C A C A A T G C C A C A C C A G T

SEQ. ID. NO. 40 A C C A G A T A C A A T C A T A T G C T C C T T C  
 SEQ. ID. NO. 46 C T T C T C T G T C T G C T A C T C A G C C C T G  
 SEQ. ID. NO. 36 C T T C T C T G T C T G C T A C T C A G C C C T G  
 SEQ. ID. NO. 32 G G T C A A G G C C T C A G G T C G G G A G C T C

SEQ. ID. NO. 40 C G A C G G G T C T T C C T A G G A C T T G G C A  
 SEQ. ID. NO. 46 C T C A C C A A G A C C A A C C G C A T T G C A C  
 SEQ. ID. NO. 36 C T C A C C A A G A C C A A C C G C A T T G C A C  
 SEQ. ID. NO. 32 T G C T A C A T C C T G C T G G G T G G T G T C T

SEQ. ID. NO. 40 T G T G T T T C A G C T A T G C A G C C C T T C T  
 SEQ. ID. NO. 46 G C A T C T T C G G T G G G G C C C G G G A G G G  
 SEQ. ID. NO. 36 G C A T C T T C G G T G G G G C C C G G G A G G G  
 SEQ. ID. NO. 32 T C C T C T G C T A C T G C A T G A C C T T C A T

Figure 11j



SEQ. ID. NO. 40 G A C C A A A A C A A A C C G T A T C C A C C G A  
 SEQ. ID. NO. 46 T G C C C A G C G G C C A C G C T T C A T C A G T  
 SEQ. ID. NO. 36 T G C C C A G C G G C C A C G C T T C A T C A G T  
 SEQ. ID. NO. 32 C T T C A T T G C C A A G C C A T C C A C G G C A

SEQ. ID. NO. 40 A T A T T T G A G C A G G G G A A G A A A T C T G  
 SEQ. ID. NO. 46 C C T G C C T C A C A G G T G G C C A T C T G C C  
 SEQ. ID. NO. 36 C C T G C C T C A C A G G T G G C C A T C T G C C  
 SEQ. ID. NO. 32 G T G T G T A C C T T A C G G C G T C T T G G T T

SEQ. ID. NO. 40 T C A C A G C G C C C A A G T T C A T T A G T C C  
 SEQ. ID. NO. 46 T G G C A C T T A T C T C G G G C C A G C T G C T  
 SEQ. ID. NO. 36 T G G C A C T T A T C T C G G G C C A G C T G C T  
 SEQ. ID. NO. 32 T G G G C A C T G C C T T C T C T G T C T G C T A

SEQ. ID. NO. 40 A G C A T C T C A G C T G G T G A T C A C C T T C  
 SEQ. ID. NO. 46 C A T C G T G G T C G C C T G G C T G G T G G T G  
 SEQ. ID. NO. 36 C A T C G T G G T C G C C T G G C T G G T G G T G  
 SEQ. ID. NO. 32 C T C A G C C C C T G C T C A C C A A G A C C A A C

SEQ. ID. NO. 40 A G C C T C A T C T C C G T C C A G C T C C T T G  
 SEQ. ID. NO. 46 G A G G C A C C G G G C A C A G G C A A G G A G A  
 SEQ. ID. NO. 36 G A G G C A C C G G G C A C A G G C A A G G A G A  
 SEQ. ID. NO. 32 C G C A T T G C A C G C A T C T T C G G T G G G G

SEQ. ID. NO. 40 G A G T G T T T G T C T G G T T T G T T G T G G A  
 SEQ. ID. NO. 46 C A G C C C C C G A A C G G C G G G A G G T G G T  
 SEQ. ID. NO. 36 C A G C C C C C G A A C G G C G G G A G G T G G T  
 SEQ. ID. NO. 32 C C C G G G A G G G T G C C C A G C G G C C A C G

SEQ. ID. NO. 40 T C C C C C C C A C A T C A T C A T T G A C T A T  
 SEQ. ID. NO. 46 G A C A C T G C G C T G C A A C C A C C G C G A T  
 SEQ. ID. NO. 36 G A C A C T G C G C T G C A A C C A C C G C G A T  
 SEQ. ID. NO. 32 C T T C A T C A G T C C T G C C T C A C A G G T G

SEQ. ID. NO. 40 G G A G A G C A G C G G A C A C T A G A T C C A G  
 SEQ. ID. NO. 46 G C A A G T A T G T T G G G C T C G C T G G C C T  
 SEQ. ID. NO. 36 G C A A G T A T G T T G G G C T C G C T G G C C T  
 SEQ. ID. NO. 32 G C C A T C T G C C T G G C A C T T A T C T C G G

Figure 11k

SEQ. ID. NO. 40 A G A A G G C C A G G G G A G T G C T C A A G T G  
 SEQ. ID. NO. 46 A C A A T G T G C T C C T C A T C G C G C T C T G  
 SEQ. ID. NO. 36 A C A A T G T G C T C C T C A T C G C G C T C T G  
 SEQ. ID. NO. 32 G C C A G C T G C T C A T C G T G G T C G C C T G

SEQ. ID. NO. 40 T G A C A T T T C T G A T C T C T C A C T C A T T  
 SEQ. ID. NO. 46 C A C G C T T T A T G C C T T C A A G A C T C G C  
 SEQ. ID. NO. 36 C A C G C T T T A T G C C T T C A A G A C T C G C  
 SEQ. ID. NO. 32 G C T G G T G G T G G A G G C A C C G G G C A C A

SEQ. ID. NO. 40 T G T T C A C T T G G A T A C A G T A T C C T C T  
 SEQ. ID. NO. 46 A A G T G C C C C G A A A A C T T C A A C G A G G  
 SEQ. ID. NO. 36 A A G T G C C C C G A A A A C T T C A A C G A G G  
 SEQ. ID. NO. 32 G G C A A G G A G A C A G C C C C C G A A C G G C

SEQ. ID. NO. 40 T G A T G G T C A C T T G T A C T G T T T A T G C  
 SEQ. ID. NO. 46 C C A A G T T C A T T G G C T T C A C C A T G T A  
 SEQ. ID. NO. 36 C C A A G T T C A T T G G C T T C A C C A T G T A  
 SEQ. ID. NO. 32 G G G A G G T G G T G A C A C T G C G C T G C A A

SEQ. ID. NO. 40 C A T T A A A A C G A G A G G T G T C C C A G A G  
 SEQ. ID. NO. 46 C A C C A C C T G C A T C A T C T G G C T G G C A  
 SEQ. ID. NO. 36 C A C C A C C T G C A T C A T C T G G C T G G C A  
 SEQ. ID. NO. 32 C C A C C G C G A T G C A A G T A T G T T G G G C

SEQ. ID. NO. 40 A C T T T C A A T G A A G C C A A A C C T A T T G  
 SEQ. ID. NO. 46 T T C C T G C C C A T C T T C T A T G T C A C C T  
 SEQ. ID. NO. 36 T T C C T G C C C A T C T T C T A T G T C A C C T  
 SEQ. ID. NO. 32 T C G C T G G C C T A C A A T G T G C T C C T C A

SEQ. ID. NO. 40 G A T T T A C C A T G T A T A C C A C C T G C A T  
 SEQ. ID. NO. 46 C C A G T G A C T A C C G G G T A C A G A C C A C  
 SEQ. ID. NO. 36 C C A G T G A C T A C C G G G T A C A G A C C A C  
 SEQ. ID. NO. 32 T C G C G C T C T G C A C G C T T T A T G C C T T

SEQ. ID. NO. 40 C A T T T G G T T A G C T T T C A T C C C C A T C  
 SEQ. ID. NO. 46 C A C C A T G T G C G T G T C A G T C A G C C T C  
 SEQ. ID. NO. 36 C A C C A T G T G C G T G T C A G T C A G C C T C  
 SEQ. ID. NO. 32 C A A T A C T C G C A A G T G C C C C G A A A A C

Figure 11L

SEQ. ID. NO. 40 T T T T T T G G T A C A G C C C A G T C A G C A G  
 SEQ. ID. NO. 46 A G C G G C T C C G T G G T G C T T G G C T G C C  
 SEQ. ID. NO. 36 A G C G G C T C C G T G G T G C T T G G C T G C C  
 SEQ. ID. NO. 32 T T C A A C G A G G C C A A G T T C A T T G G C T

SEQ. ID. NO. 40 A A A A G A T G T A C A T C C A G A C A A C A A C  
 SEQ. ID. NO. 46 T C T T T G C G C C C A A G C T G C A C A T C A T  
 SEQ. ID. NO. 36 T C T T T G C G C C C A A G C T G C A C A T C A T  
 SEQ. ID. NO. 32 T C A C C A T G T A C A C C A C C T G C A T C A T

SEQ. ID. NO. 40 A C T T A C T G T C T C C A T G A G T T T A A G T  
 SEQ. ID. NO. 46 C C T C T T C C A G C C G C A G A A G A A C A C C  
 SEQ. ID. NO. 36 C C T C T T C C A G C C G C A G A A G A A C A C C  
 SEQ. ID. NO. 32 C T G G C T G G C A T T G T T G C C C A T C T T C

SEQ. ID. NO. 40 G C T T C A G T A T C T C T G G G C A T G C T C T  
 SEQ. ID. NO. 46 A T C G A G G A G G T G C G T T G C A G C A C C G  
 SEQ. ID. NO. 36 A T C G A G G A G G T G C G T T G C A G C A C C G  
 SEQ. ID. NO. 32 T A T G T C A C C T C C A G T G A C T A C C G G G

SEQ. ID. NO. 40 A T A T G C C C A A G G T T T A T A T T A T A A T  
 SEQ. ID. NO. 46 C A G C T C A C G C T T T C A A G G T G G C T G C  
 SEQ. ID. NO. 36 C A G C T C A C G C T T T C A A G G T G G C T G C  
 SEQ. ID. NO. 32 T A C A G A C C A C C A C C A T G T G C G T G T C

SEQ. ID. NO. 40 T T T T C A T C C A G A A C A G A A T A C C A T C  
 SEQ. ID. NO. 46 C C G G G C C A C G C T G C G C C G C A G C A A C  
 SEQ. ID. NO. 36 C C G G G C C A C G C T G C G C C G C A G C A A C  
 SEQ. ID. NO. 32 A G T C A G C C T C A G C G G C T C C G T G G T G

SEQ. ID. NO. 40 G A G G A G G T G C G T T G C A G C A C C G C A G  
 SEQ. ID. NO. 46 G T C T C C C G C A A G C G G T C C A G C A G C C  
 SEQ. ID. NO. 36 G T C T C C C G C A A G C G G T C C A G C A G C C  
 SEQ. ID. NO. 32 C T T G G C T G C C T C T T T G C G C C C A A G C

SEQ. ID. NO. 40 C T C A C G C T T T C A A G G T G G C T G C C C G  
 SEQ. ID. NO. 46 T T G G A G G C T C C A C G G G A T C C A C C C C  
 SEQ. ID. NO. 36 T T G G A G G C T C C A C G G G A T C C A C C C C  
 SEQ. ID. NO. 32 T G C A C A T C A T C C T C T T C C A G C C G C A

Figure 11m

SEQ. ID. NO. 40 G G C C A C G C T G C G C C G C A G C A A C G T C  
 SEQ. ID. NO. 46 C T C C T C C T C C A T C A G C A G C A A G A G C  
 SEQ. ID. NO. 36 C T C C T C C T C C A T C A G C A G C A A G A G C  
 SEQ. ID. NO. 32 G A A G A A C G T G G T T A G C C A C C G G G C A

SEQ. ID. NO. 40 T C C C G C A A G C G G T C C A G C A G C C T T G  
 SEQ. ID. NO. 46 A A C A G C G A A G A C C C A T T C C C A C A G C  
 SEQ. ID. NO. 36 A A C A G C G A A G A C C C A T T C C C A C A G C  
 SEQ. ID. NO. 32 C C C A C C A G C C G C T T T G G C A G T G C T G

SEQ. ID. NO. 40 G A G G C T C C A C G G G A T C C A C C C C C T C  
 SEQ. ID. NO. 46 C C G A G A G G C A G A A G C A G C A G C A G C C  
 SEQ. ID. NO. 36 C C G A G A G G C A G A A G C A G C A G C A G C C  
 SEQ. ID. NO. 32 C T G C C A G G G C C A G C T C C A G C C T T G G

SEQ. ID. NO. 40 C T C C T C C A T C A G C A G C A A G A G C A A C  
 SEQ. ID. NO. 46 G C T G G C C C T A A C C C A G C A A G A G C A G  
 SEQ. ID. NO. 36 G C T G G C C C T A A C C C A G C A A G A G C A G  
 SEQ. ID. NO. 32 C C A A G G G T C T G G C T C C C A G T T T G T C

SEQ. ID. NO. 40 A G C G A A G A C C C A T T C C C A C A G C C C G  
 SEQ. ID. NO. 46 C A G C A G C A G C C C C T G A C C C T C C C A C  
 SEQ. ID. NO. 36 C A G C A G C A G C C C C T G A C C C T C C C A C  
 SEQ. ID. NO. 32 C C C A C T G T T T G C A A T G G C C G T G A G G

SEQ. ID. NO. 40 A G A G G C A G A A G C A G C A G C A G C C G C T  
 SEQ. ID. NO. 46 A G C A G C A A C G A T C T C A G C A G C A G C C  
 SEQ. ID. NO. 36 A G C A G C A A C G A T C T C A G C A G C A G C C  
 SEQ. ID. NO. 32 T G G T G G A C T C G A C A A C G T C A T C G C T

SEQ. ID. NO. 40 G G C C C T A A C C C A G C A A G A G C A G C A G  
 SEQ. ID. NO. 46 C A G A T G C A A G C A G A A G G T C A T C T T T  
 SEQ. ID. NO. 36 C A G A T G C A A G C A G A A G G T C A T C T T T  
 SEQ. ID. NO. 32 T A T G A C T C T G G A G T C C A T C A T G G C G

SEQ. ID. NO. 40 C A G C A G C C C C T G A C C C T C C C A C A G C  
 SEQ. ID. NO. 46 G G C A G C G G C A C G G T C A C C T T C T C A C  
 SEQ. ID. NO. 36 G G C A G C G G C A C G G T C A C C T T C T C A C  
 SEQ. ID. NO. 32 T G C T G C C T G A G C G A G G A G G C C A A G G

Figure 11n

SEQ. ID. NO. 40 A G C A A C G A T C T C A G C A G C A G C C C A G  
 SEQ. ID. NO. 46 T G A G C T T T G A T G A G C C T C A G A A G A A  
 SEQ. ID. NO. 36 T G A G C T T T G A T G A G C C T C A G A A G A A  
 SEQ. ID. NO. 32 A A G C C C G G C G G A T C A A C G A C G A G A T

SEQ. ID. NO. 40 A T G C A A G C A G A A G G T C A T C T T T G G C  
 SEQ. ID. NO. 46 C G C C A T G G C C C A C G G G A A T T C T A C G  
 SEQ. ID. NO. 36 C G C C A T G G C C C A C G G G A A T T C T A C G  
 SEQ. ID. NO. 32 C G A G C G G C A G C T C C G C A G G G A C A A G

SEQ. ID. NO. 40 A G C G G C A C G G T C A C C T T C T C A C T G A  
 SEQ. ID. NO. 46 C A C C A G A A C T C C C T G G A G G C C C A G A  
 SEQ. ID. NO. 36 C A C C A G A A C T C C C T G G A G G C C C A G A  
 SEQ. ID. NO. 32 C G G G A C G C C C G C C G G G A G C T C A A G C

SEQ. ID. NO. 40 G C T T T G A T G A G C C T C A G A A G A A C G C  
 SEQ. ID. NO. 46 A A A G C A G C G A T A C G C T G A C C C G A C A  
 SEQ. ID. NO. 36 A A A G C A G C G A T A C G C T G A C C C G A C A  
 SEQ. ID. NO. 32 T G C T G C T G C T C G G G A C A G G A G A G A G

SEQ. ID. NO. 40 C A T G G C C C A C G G G A A T T C T A C G C A C  
 SEQ. ID. NO. 46 C C A G C C A T T A C T C C C G C T G C A G T G C  
 SEQ. ID. NO. 36 C C A G C C A T T A C T C C C G C T G C A G T G C  
 SEQ. ID. NO. 32 T G G C A A G A G T A C G T T T A T C A A G C A G

SEQ. ID. NO. 40 C A G A A C T C C C T G G A G G C C C A G A A A A  
 SEQ. ID. NO. 46 G G G G A A A C G G A C T T A G A T C T G A C C G  
 SEQ. ID. NO. 36 G G G G A A A C G G A C T T A G A T C T G A C C G  
 SEQ. ID. NO. 32 A T G A G A A T C A T C C A T G G G T C A G G A T

SEQ. ID. NO. 40 G C A G C G A T A C G C T G A C C C G A C A C C A  
 SEQ. ID. NO. 46 T C C A G G A A A C A G G T C T G C A A G G A C C  
 SEQ. ID. NO. 36 T C C A G G A A A C A G G T C T G C A A G G A C C  
 SEQ. ID. NO. 32 A C T C T G A T G A A G A T A A A A G G G G C T T

SEQ. ID. NO. 40 G C C A T T A C T C C C G C T G C A G T G C G G G  
 SEQ. ID. NO. 46 T G T G G G T G G A G A C C A G C G G C C A G A G  
 SEQ. ID. NO. 36 T G T G G G T G G A G A C C A G C G G C C A G A G  
 SEQ. ID. NO. 32 C A C C A A G C T G G T G T A T C A G A A C A T C

Figure 110

SEQ. ID. NO. 40 G A A A C G G A C T T A G A T C T G A C C G T C C  
 SEQ. ID. NO. 46 G T G G A G G A C C C T G A A G A G T T G T C C C  
 SEQ. ID. NO. 36 G T G G A G G A C C C T G A A G A G T T G T C C C  
 SEQ. ID. NO. 32 T T C A C G G C C A T G C A G G C C A T G A T C A

SEQ. ID. NO. 40 A G G A A A C A G G T C T G C A A G G A C C T G T  
 SEQ. ID. NO. 46 C A G C A C T T G T A G T G T C C A G T T C A C A  
 SEQ. ID. NO. 36 C A G C A C T T G T A G T G T C C A G T T C A C A  
 SEQ. ID. NO. 32 G A G C C A T G G A C A C A C T C A A G A T C C C

SEQ. ID. NO. 40 G G G T G G A G A C C A G C G G C C A G A G G T G  
 SEQ. ID. NO. 46 G A G C T T T G T C A T C A G T G G T G G A G G C  
 SEQ. ID. NO. 36 G A G C T T T G T C A T C A G T G G T G G A G G C  
 SEQ. ID. NO. 32 A T A C A A G T A T G A G C A C A A T A A G G C T

SEQ. ID. NO. 40 G A G G A C C C T G A A G A G T T G T C C C C A G  
 SEQ. ID. NO. 46 A G C A C T G T T A C A G A A A A C G T A G T G A  
 SEQ. ID. NO. 36 A G C A C T G T T A C A G A A A A C G T A G T G A  
 SEQ. ID. NO. 32 C A T G C A C A A T T A G T T C G A G A A G T T G

SEQ. ID. NO. 40 C A C T T G T A G T G T C C A G T T C A C A G A G  
 SEQ. ID. NO. 46 A T T C A G C G G C C G C C A T G A C T C T G G A  
 SEQ. ID. NO. 36 A T T C A A T G A C T C T G G A G T C C A T C A T  
 SEQ. ID. NO. 32 A T G T G G A G A A G G T G T C T G C T T T T G A

SEQ. ID. NO. 40 C T T T G T C A T C A G T G G T G G A G G C A G C  
 SEQ. ID. NO. 46 G T C C A T C A T G G C G T G C T G C C T G A G C  
 SEQ. ID. NO. 36 G G C G T G C T G C C T G A G C G A G G A G G C C  
 SEQ. ID. NO. 32 G A A T C C A T A T G T A G A T G C A A T A A A G

SEQ. ID. NO. 40 A C T G T T A C A G A A A A C G T A G T G A A T T  
 SEQ. ID. NO. 46 G A G G A G G C C A A G G A A G C C C G G C G G A  
 SEQ. ID. NO. 36 A A G G A A G C C C G G C G G A T C A A C G A C G  
 SEQ. ID. NO. 32 A G T T T A T G G A A T G A T C C T G G A A T C C

SEQ. ID. NO. 40 C A - - - - -  
 SEQ. ID. NO. 46 T C A A C G A C G A G A T C G A G C G G C A G C T  
 SEQ. ID. NO. 36 A G A T C G A G C G G C A G C T C C G C A G G G A  
 SEQ. ID. NO. 32 A G G A A T G C T A T G A T A G A C G A C G A G A

Figure 11p

SEQ. ID. NO. 40 - - - - -  
 SEQ. ID. NO. 46 C C G C A G G G A C A A G C G G G A C G C C C G C  
 SEQ. ID. NO. 36 C A A G C G G G A C G C C C G C C G G G A G C T C  
 SEQ. ID. NO. 32 A T A T C A A T T A T C T G A C T C T A C C A A A

SEQ. ID. NO. 40 - - - - - A T G A C T C T G G  
 SEQ. ID. NO. 46 C G G G A G C T C A A G C T G C T G C T G C T C G  
 SEQ. ID. NO. 36 A A G C T G C T G C T G C T C G G G A C A G G A G  
 SEQ. ID. NO. 32 T A C T A T C T T A A T G A C T T G G A C C G C G

SEQ. ID. NO. 40 A G T C C A T C A T G G C G T G C T G C C T G A G  
 SEQ. ID. NO. 46 G G A C A G G A G A G A G T G G C A A G A G T A C  
 SEQ. ID. NO. 36 A G A G T G G C A A G A G T A C G T T T A T C A A  
 SEQ. ID. NO. 32 T A G C T G A C C C T G C C T A C C T G C C T A C

SEQ. ID. NO. 40 C G A G G A G G C C A A G G A A G C C C G G C G G  
 SEQ. ID. NO. 46 G T T T A T C A A G C A G A T G A G A A T C A T C  
 SEQ. ID. NO. 36 G C A G A T G A G A A T C A T C C A T G G G T C A  
 SEQ. ID. NO. 32 G C A A C A A G A T G T G C T T A G A G T T C G A

SEQ. ID. NO. 40 A T C A A C G A C G A G A T C G A G C G G C A G C  
 SEQ. ID. NO. 46 C A T G G G T C A G G A T A C T C T G A T G A A G  
 SEQ. ID. NO. 36 G G A T A C T C T G A T G A A G A T A A A A G G G  
 SEQ. ID. NO. 32 G T C C C C A C C A C A G G G A T C A T C G A A T

SEQ. ID. NO. 40 T C C G C A G G G A C A A G C G G G A C G C C C G  
 SEQ. ID. NO. 46 A T A A A A G G G G C T T C A C C A A G C T G G T  
 SEQ. ID. NO. 36 G C T T C A C C A A G C T G G T G T A T C A G A A  
 SEQ. ID. NO. 32 A C C C C T T T G A C T T A C A A A G T G T C A T

SEQ. ID. NO. 40 C C G G G A G C T C A A G C T G C T G C T G C T C  
 SEQ. ID. NO. 46 G T A T C A G A A C A T C T T C A C G G C C A T G  
 SEQ. ID. NO. 36 C A T C T T C A C G G C C A T G C A G G C C A T G  
 SEQ. ID. NO. 32 T T T C A G A A T G G T C G A T G T A G G G G G C

SEQ. ID. NO. 40 G G G A C A G G A G A G A G T G G C A A G A G T A  
 SEQ. ID. NO. 46 C A G G C C A T G A T C A G A G C C A T G G A C A  
 SEQ. ID. NO. 36 A T C A G A G C C A T G G A C A C A C T C A A G A  
 SEQ. ID. NO. 32 C A A A G G T C A G A G A G A A G A A A A T G G A

Figure 11q

SEQ. ID. NO. 40 C G T T T A T C A A G C A G A T G A G A A T C A T  
 SEQ. ID. NO. 46 C A C T C A A G A T C C C A T A C A A G T A T G A  
 SEQ. ID. NO. 36 T C C C A T A C A A G T A T G A G C A C A A T A A  
 SEQ. ID. NO. 32 T A C A C T G C T T T G A A A A T G T C A C C T C

SEQ. ID. NO. 40 C C A T G G G T C A G G A T A C T C T G A T G A A  
 SEQ. ID. NO. 46 G C A C A A T A A G G C T C A T G C A C A A T T A  
 SEQ. ID. NO. 36 G G C T C A T G C A C A A T T A G T T C G A G A A  
 SEQ. ID. NO. 32 T A T C A T G T T T C T A G T A G C G C T T A G T

SEQ. ID. NO. 40 G A T A A A A G G G G C T T C A C C A A G C T G G  
 SEQ. ID. NO. 46 G T T C G A G A A G T T G A T G T G G A G A A G G  
 SEQ. ID. NO. 36 G T T G A T G T G G A G A A G G T G T C T G C T T  
 SEQ. ID. NO. 32 G A A T A T G A T C A A G T T C T C G T G G A G T

SEQ. ID. NO. 40 T G T A T C A G A A C A T C T T C A C G G C C A T  
 SEQ. ID. NO. 46 T G T C T G C T T T T G A G A A T C C A T A T G T  
 SEQ. ID. NO. 36 T T G A G A A T C C A T A T G T A G A T G C A A T  
 SEQ. ID. NO. 32 C A G A C A A T G A G A A C C G A A T G G A G G A

SEQ. ID. NO. 40 G C A G G C C A T G A T C A G A G C C A T G G A C  
 SEQ. ID. NO. 46 A G A T G C A A T A A A G A G T T T A T G G A A T  
 SEQ. ID. NO. 36 A A A G A G T T T A T G G A A T G A T C C T G G A  
 SEQ. ID. NO. 32 A A G C A A G G C T C T C T T T A G A A C A A T T

SEQ. ID. NO. 40 A C A C T C A A G A T C C C A T A C A A G T A T G  
 SEQ. ID. NO. 46 G A T C C T G G A A T C C A G G A A T G C T A T G  
 SEQ. ID. NO. 36 A T C C A G G A A T G C T A T G A T A G A C G A C  
 SEQ. ID. NO. 32 A T C A C A T A C C C C T G G T T C C A G A A C T

SEQ. ID. NO. 40 A G C A C A A T A A G G C T C A T G C A C A A T T  
 SEQ. ID. NO. 46 A T A G A C G A C G A G A A T A T C A A T T A T C  
 SEQ. ID. NO. 36 G A G A A T A T C A A T T A T C T G A C T C T A C  
 SEQ. ID. NO. 32 C C T C G G T T A T T C T G T T C T T A A A C A A

SEQ. ID. NO. 40 A G T T C G A G A A G T T G A T G T G G A G A A G  
 SEQ. ID. NO. 46 T G A C T C T A C C A A A T A C T A T C T T A A T  
 SEQ. ID. NO. 36 C A A A T A C T A T C T T A A T G A C T T G G A C  
 SEQ. ID. NO. 32 G A A A G A T C T T C T A G A G G A G A A A A T C

Figure 11r



SEQ. ID. NO. 40 G T G T C T G C T T T T G A G A A T C C A T A T G  
 SEQ. ID. NO. 46 G A C T T G G A C C G C G T A G C T G A C C C T G  
 SEQ. ID. NO. 36 C G C G T A G C T G A C C C T G C C T A C C T G C  
 SEQ. ID. NO. 32 A T G T A T T C C C A T C T A G T C G A C T A C T

SEQ. ID. NO. 40 T A G A T G C A A T A A A G A G T T T A T G G A A  
 SEQ. ID. NO. 46 C C T A C C T G C C T A C G C A A C A A G A T G T  
 SEQ. ID. NO. 36 C T A C G C A A C A A G A T G T G C T T A G A G T  
 SEQ. ID. NO. 32 T C C C A G A A T A T G A T G G A C C C C A G A G

SEQ. ID. NO. 40 T G A T C C T G G A A T C C A G G A A T G C T A T  
 SEQ. ID. NO. 46 G C T T A G A G T T C G A G T C C C C A C C A C A  
 SEQ. ID. NO. 36 T C G A G T C C C C A C C A C A G G G A T C A T C  
 SEQ. ID. NO. 32 A G A T G C C C A G G C A G C C C G A G A A T T C

SEQ. ID. NO. 40 G A T A G A C G A C G A G A A T A T C A A T T A T  
 SEQ. ID. NO. 46 G G G A T C A T C G A A T A C C C C T T T G A C T  
 SEQ. ID. NO. 36 G A A T A C C C C T T T G A C T T A C A A A G T G  
 SEQ. ID. NO. 32 A T T C T G A A G A T G T T C G T G G A C C T G A

SEQ. ID. NO. 40 C T G A C T C T A C C A A A T A C T A T C T T A A  
 SEQ. ID. NO. 46 T A C A A A G T G T C A T T T T T C A G A A T G G T  
 SEQ. ID. NO. 36 T C A T T T T T C A G A A T G G T C G A T G T A G G  
 SEQ. ID. NO. 32 A C C C A G A C A G T G A C A A A A T T A T C T A

SEQ. ID. NO. 40 T G A C T T G G A C C G C G T A G C T G A C C C T  
 SEQ. ID. NO. 46 C G A T G T A G G G G G C C A A A G G T C A G A G  
 SEQ. ID. NO. 36 G G G C C A A A G G T C A G A G A G A A G A A A A  
 SEQ. ID. NO. 32 C T C C C A C T T T C A C G T G C G C C A C A G A C

SEQ. ID. NO. 40 G C C T A C C T G C C T A C G C A A C A A G A T G  
 SEQ. ID. NO. 46 A G A A G A A A A T G G A T A C A C T G C T T T G  
 SEQ. ID. NO. 36 T G G A T A C A C T G C T T T T G A A A A T G T C A  
 SEQ. ID. NO. 32 A C C G A G A A T A T C C G C T T T G T C T T T G

SEQ. ID. NO. 40 T G C T T A G A G T T C G A G T C C C C A C C A C  
 SEQ. ID. NO. 46 A A A A T G T C A C C T C T A T C A T G T T T C T  
 SEQ. ID. NO. 36 C C T C T A T C A T G T T T C T A G T A G C G C T  
 SEQ. ID. NO. 32 C T G C C G T C A A G G A C A C C A T C C T C C A

Figure 11s

SEQ. ID. NO. 40 A G G G A T C A T C G A A T A C C C C T T T G A C  
 SEQ. ID. NO. 46 A G T A G C G C T T A G T G A A T A T G A T C A A  
 SEQ. ID. NO. 36 T A G T G A A T A T G A T C A A G T T C T C G T G  
 SEQ. ID. NO. 32 G T T G A A C C T G A A G G A C T G C G G T C T G

SEQ. ID. NO. 40 T T A C A A A G T G T C A T T T T C A G A A T G G  
 SEQ. ID. NO. 46 G T T C T C G T G G A G T C A G A C A A T G A G A  
 SEQ. ID. NO. 36 G A G T C A G A C A A T G A G A A C C G A A T G G  
 SEQ. ID. NO. 32 T T C T A A

SEQ. ID. NO. 40 T C G A T G T A G G G G G C C A A A G G T C A G A  
 SEQ. ID. NO. 46 A C C G A A T G G A G G A A A G C A A G G C T C T  
 SEQ. ID. NO. 36 A G G A A A G C A A G G C T C T C T T T A G A A C  
 SEQ. ID. NO. 32

SEQ. ID. NO. 40 G A G A A G A A A A T G G A T A C A C T G C T T T  
 SEQ. ID. NO. 46 C T T T A G A A C A A T T A T C A C A T A C C C C  
 SEQ. ID. NO. 36 A A T T A T C A C A T A C C C C T G G T T C C A G  
 SEQ. ID. NO. 32

SEQ. ID. NO. 40 G A A A A T G T C A C C T C T A T C A T G T T T C  
 SEQ. ID. NO. 46 T G G T T C C A G A A C T C C T C G G T T A T T C  
 SEQ. ID. NO. 36 A A C T C C T C G G T T A T T C T G T T C T T A A  
 SEQ. ID. NO. 32

SEQ. ID. NO. 40 T A G T A G C G C T T A G T G A A T A T G A T C A  
 SEQ. ID. NO. 46 T G T T C T T A A A C A A G A A A G A T C T T C T  
 SEQ. ID. NO. 36 A C A A G A A A G A T C T T C T A G A G G A G A A  
 SEQ. ID. NO. 32

SEQ. ID. NO. 40 A G T T C T C G T G G A G T C A G A C A A T G A G  
 SEQ. ID. NO. 46 A G A G G A G A A A A T C A T G T A T T C C C A T  
 SEQ. ID. NO. 36 A A T C A T G T A T T C C C A T C T A G T C G A C  
 SEQ. ID. NO. 32

SEQ. ID. NO. 40 A A C C G A A T G G A G G A A A G C A A G G C T C  
 SEQ. ID. NO. 46 C T A G T C G A C T A C T T C C C A G A A T A T G  
 SEQ. ID. NO. 36 T A C T T C C C A G A A T A T G A T G G A C C C C  
 SEQ. ID. NO. 32

Figure 11t

SEQ. ID. NO. 40 T C T T T A G A A C A A T T A T C A C A T A C C C  
 SEQ. ID. NO. 46 A T G G A C C C C A G A G A G A T G C C C A G G C  
 SEQ. ID. NO. 36 A G A G A G A T G C C C A G G C A G C C C G A G A  
 SEQ. ID. NO. 32

SEQ. ID. NO. 40 C T G G T T C C A G A A C T C C T C G G T T A T T  
 SEQ. ID. NO. 46 A G C C C G A G A A T T C A T T C T G A A G A T G  
 SEQ. ID. NO. 36 A T T C A T T C T G A A G A T G T T C G T G G A C  
 SEQ. ID. NO. 32

SEQ. ID. NO. 40 C T G T T C T T A A A C A A G A A A G A T C T T C  
 SEQ. ID. NO. 46 T T C G T G G A C C T G A A C C C A G A C A G T G  
 SEQ. ID. NO. 36 C T G A A C C C A G A C A G T G A C A A A A T T A  
 SEQ. ID. NO. 32

SEQ. ID. NO. 40 T A G A G G A G A A A A T C A T G T A T T C C C A  
 SEQ. ID. NO. 46 A C A A A A T T A T C T A C T C C C A C T T C A C  
 SEQ. ID. NO. 36 T C T A C T C C C A C T T C A C G T G C G C C A C  
 SEQ. ID. NO. 32

SEQ. ID. NO. 40 T C T A G T C G A C T A C T T C C C A G A A T A T  
 SEQ. ID. NO. 46 G T G C G C C A C A G A C A C C G A G A A T A T C  
 SEQ. ID. NO. 36 A G A C A C C G A G A A T A T C C G C T T T G T C  
 SEQ. ID. NO. 32

SEQ. ID. NO. 40 G A T G G A C C C C A G A G A G A T G C C C A G G  
 SEQ. ID. NO. 46 C G C T T T G T C T T T G C T G C C G T C A A G G  
 SEQ. ID. NO. 36 T T T G C T G C C G T C A A G G A C A C C A T C C  
 SEQ. ID. NO. 32

SEQ. ID. NO. 40 C A G C C C G A G A A T T C A T T C T G A A G A T  
 SEQ. ID. NO. 46 A C A C C A T C C T C C A G T T G A A C C T G A A  
 SEQ. ID. NO. 36 T C C A G T T G A A C C T G A A G G A C T G C G G  
 SEQ. ID. NO. 32

SEQ. ID. NO. 40 G T T C G T G G A C C T G A A C C C A G A C A G T  
 SEQ. ID. NO. 46 G G A C T G C G G T C T G T T C T A A T T G T G C  
 SEQ. ID. NO. 36 T C T G T T C T A A  
 SEQ. ID. NO. 32

Figure 11u

SEQ. ID. NO. 40 G A C A A A A T T A T C T A C T C C C A C T T C A  
SEQ. ID. NO. 46 C T C C T A G A C A C C C G C C C T G C C C T T C  
SEQ. ID. NO. 36  
SEQ. ID. NO. 32

SEQ. ID. NO. 40 C G T G C G C C A C A G A C A C C G A G A A T A T  
SEQ. ID. NO. 46 C C T G G T  
SEQ. ID. NO. 36  
SEQ. ID. NO. 32

SEQ. ID. NO. 40 C C G C T T T G T C T T T G C T G C C G T C A A G  
SEQ. ID. NO. 46  
SEQ. ID. NO. 36  
SEQ. ID. NO. 32

SEQ. ID. NO. 40 G A C A C C A T C C T C C A G T T G A A C C T G A  
SEQ. ID. NO. 46  
SEQ. ID. NO. 36  
SEQ. ID. NO. 32

SEQ. ID. NO. 40 A G G A C T G C G G T C T G T T C T A A  
SEQ. ID. NO. 46  
SEQ. ID. NO. 36  
SEQ. ID. NO. 32

Figure 11v

# ClustalW Formatted Alignments

SEQ. ID. NO. 41 M V C E G K R S A S C P C F F L L T A K F Y W I L  
 SEQ. ID. NO. 47 M G S L L A L P A L L L L W G A V A E G P A K K V  
 SEQ. ID. NO. 37 M G S L L A L P A L L L L W G A V A E G P A K K V  
 SEQ. ID. NO. 33 M A F Y S C C W V L L A L T W H T S A Y G P D Q R

SEQ. ID. NO. 41 T M M Q R T H S Q E Y A H S I R V D G D I I L G G  
 SEQ. ID. NO. 47 L T L E G D L V L G G L F P V H Q K G G P A E D C  
 SEQ. ID. NO. 37 L T L E G D L V L G G L F P V H Q K G G P A E D C  
 SEQ. ID. NO. 33 A Q K K G D I I L G G L F P I H F G V A A K D Q D

SEQ. ID. NO. 41 L F P V H A K G E R G V P C G E L K K E K G I H R  
 SEQ. ID. NO. 47 G P V N E H R G I Q R L E A M L F A L D R I N R D  
 SEQ. ID. NO. 37 G P V N E H R G I Q R L E A M L F A L D R I N R D  
 SEQ. ID. NO. 33 L K S R P E S V E C I R Y N F R G F R W L Q A M I

SEQ. ID. NO. 41 L E A M L Y A I D Q I N K D P D L L S N I T L G V  
 SEQ. ID. NO. 47 P H L L P G V R L G A H I L D S C S K D T H A L E  
 SEQ. ID. NO. 37 P H L L P G V R L G A H I L D S C S K D T H A L E  
 SEQ. ID. NO. 33 F A I E E I N S S P A L L P N L T L G Y R I F D T

SEQ. ID. NO. 41 R I L D T C S R D T Y A L E Q S L T F V Q A L I E  
 SEQ. ID. NO. 47 Q A L D F V R A S L S R G A D G S R H I C P D G S  
 SEQ. ID. NO. 37 Q A L D F V R A S L S R G A D G S R H I C P D G S  
 SEQ. ID. NO. 33 C N T V S K A L E A T L S F V A Q N K I D S L N L

SEQ. ID. NO. 41 K D A S D V K C A N G D P P I F T K P D K I S G V  
 SEQ. ID. NO. 47 Y A T H G D A P T A I T G V I G G S Y S D V S I Q  
 SEQ. ID. NO. 37 Y A T H G D A P T A I T G V I G G S Y S D V S I Q  
 SEQ. ID. NO. 33 D E F C N C S E H I P S T I A V V G A T G S G V S

SEQ. ID. NO. 41 I G A A A S S V S I M V A N I L R L F K I P Q I S  
 SEQ. ID. NO. 47 V A N L L R L F Q I P Q I S Y A S T S A K L S D K  
 SEQ. ID. NO. 37 V A N L L R L F Q I P Q I S Y A S T S A K L S D K  
 SEQ. ID. NO. 33 T A V A N L L G L F Y I P Q V S Y A S S S R L L S

SEQ. ID. NO. 41 Y A S T A P E L S D N T R Y D F F S R V V P P D S  
 SEQ. ID. NO. 47 S R Y D Y F A R T V P P D F F Q A K A M A E I L R  
 SEQ. ID. NO. 37 S R Y D Y F A R T V P P D F F Q A K A M A E I L R  
 SEQ. ID. NO. 33 N K N Q F K S F L R T I P N D E H Q A T A M A D I

Figure 12a

SEQ. ID. NO. 41 YQAQAMVDIVTALGWNYVSTLASEG  
 SEQ. ID. NO. 47 FFNWTYVSTVASEGDYGETGIEAFE  
 SEQ. ID. NO. 37 FFNWTYVSTVASEGDYGETGIEAFE  
 SEQ. ID. NO. 33 IEYFRWNWVGTIAADDDYGRPGIEK

SEQ. ID. NO. 41 NYGESGVEAFTQISREIGGVCIAS  
 SEQ. ID. NO. 47 LEARARNICVATSEKVGGRAMSRAAF  
 SEQ. ID. NO. 37 LEARARNICVATSEKVGGRAMSRAAF  
 SEQ. ID. NO. 33 FREEAEERDICI D FSELISQYSDEE

SEQ. ID. NO. 41 QKIPREPRPGEFEKI IKRLLET PNA  
 SEQ. ID. NO. 47 EGVVRALLQKPSARVAVL FTRSEDA  
 SEQ. ID. NO. 37 EGVVRALLQKPSARVAVL FTRSEDA  
 SEQ. ID. NO. 33 EIQHVVEVIQNSTAKVIVVFSSGPD

SEQ. ID. NO. 41 RAVIMFANEDDIRRI LEAAKKLNQS  
 SEQ. ID. NO. 47 REL LAASQRLNASFTWVASD GWGAL  
 SEQ. ID. NO. 37 REL LAASQRLNASFTWVASD GWGAL  
 SEQ. ID. NO. 33 LEPLIKEIVRRNITGKIWLASEAWA

SEQ. ID. NO. 41 GHFLWIGSDSWGSKIAPVYQQEEIA  
 SEQ. ID. NO. 47 ESVVAGSEGA AEGAITIELASYPIS  
 SEQ. ID. NO. 37 ESVVAGSEGA AEGAITIELASYPIS  
 SEQ. ID. NO. 33 SSSLIAM P QYFHVVG GTIGFALKAG

SEQ. ID. NO. 41 EGAVTILPKRASIDGFDRYFRSRTL  
 SEQ. ID. NO. 47 DFASYFQSLDPWNN SRNPWFREFWE  
 SEQ. ID. NO. 37 DFASYFQSLDPWNN SRNPWFREFWE  
 SEQ. ID. NO. 33 QIPGFREFLKKVHPRKSVHNGFAKE

SEQ. ID. NO. 41 ANNRRNVWF AEFWEENFGCKLGSHG  
 SEQ. ID. NO. 47 QRFRC SFRQRDCAAHSLRAVPFEQE  
 SEQ. ID. NO. 37 QRFRC SFRQRDCAAHSLRAVPFEQE  
 SEQ. ID. NO. 33 FWEETFNCHLQEGAKG PLPVDTFLR

SEQ. ID. NO. 41 KRNSHIKKCTGLERI ARDSSSYEQEG  
 SEQ. ID. NO. 47 SKIMFVVNAVYAMAHALHNMHRALC  
 SEQ. ID. NO. 37 SKIMFVVNAVYAMAHALHNMHRALC  
 SEQ. ID. NO. 33 GHEESGDRFSNSSTA FRPLCTGDEN

Figure 12b

SEQ. ID. NO. 41 K V Q F V I D A V Y S M A Y A L H N M H K D L C P  
 SEQ. ID. NO. 47 P N T T R L C D A M R P V N G R R L Y K D F V L N  
 SEQ. ID. NO. 37 P N T T R L C D A M R P V N G R R L Y K D F V L N  
 SEQ. ID. NO. 33 I S S V E T P Y I D Y T H L R I S Y N V Y L A V Y

SEQ. ID. NO. 41 G Y I G L C P R M S T I D G K E L L G Y I R A V N  
 SEQ. ID. NO. 47 V K F D A P F R P A D T H N E V R F D R F G D G I  
 SEQ. ID. NO. 37 V K F D A P F R P A D T H N E V R F D R F G D G I  
 SEQ. ID. NO. 33 S I A H A L Q D I Y T C L P G R G L F T N G S C A

SEQ. ID. NO. 41 F N G S A G T P V T F N E N G D A P G R Y D I F Q  
 SEQ. ID. NO. 47 G R Y N I F T Y L R A G S G R Y R Y Q K V G Y W A  
 SEQ. ID. NO. 37 G R Y N I F T Y L R A G S G R Y R Y Q K V G Y W A  
 SEQ. ID. NO. 33 D I K K V E A W Q V L K H L R H L N F T N N M G E

SEQ. ID. NO. 41 Y Q I T N K S T E Y K V I G H W T N Q L H L K V E  
 SEQ. ID. NO. 47 E G L T L D T S L I P W A S P S A G P L P A S R C  
 SEQ. ID. NO. 37 E G L T L D T S L I P W A S P S A G P L P A S R C  
 SEQ. ID. NO. 33 Q V T F D E C G D L V G N Y S I I N W H L S P E D

SEQ. ID. NO. 41 D M Q W A H R E H T H P A S V C S L P C K P G E R  
 SEQ. ID. NO. 47 S E P C L Q N E V K S V Q P G E V C C W L C I P C  
 SEQ. ID. NO. 37 S E P C L Q N E V K S V Q P G E V C C W L C I P C  
 SEQ. ID. NO. 33 G S I V F K E V G Y Y N V Y A K K G E R L F I N E

SEQ. ID. NO. 41 K K T V K G V P C C W H C E R C E G Y N Y Q V D E  
 SEQ. ID. NO. 47 Q P Y E Y R L D E F T C A D C G L G Y W P N A S L  
 SEQ. ID. NO. 37 Q P Y E Y R L D E F T C A D C G L G Y W P N A S L  
 SEQ. ID. NO. 33 E K I L W S G F S R E V P F S N C S R D C L A G T

SEQ. ID. NO. 41 L S C E L C P L D Q R P N M N R T G C Q L I P I I  
 SEQ. ID. NO. 47 T G C F E L P Q E Y I R W G D A W A V G P V T I A  
 SEQ. ID. NO. 37 T G C F E L P Q E Y I R W G D A W A V G P V T I A  
 SEQ. ID. NO. 33 R K G I I E G E P T C C F E C V E C P D G E Y S D

SEQ. ID. NO. 41 K L E W H S P W A V V P V F V A I L G I I A T T F  
 SEQ. ID. NO. 47 C L G A L A T L F V L G V F V R H N A T P V V K A  
 SEQ. ID. NO. 37 C L G A L A T L F V L G V F V R H N A T P V V K A  
 SEQ. ID. NO. 33 E T D A S A C N K C P D D F W S N E N H T S C F E

Figure 12c

SEQ. ID. NO. 41 V I V T F V R Y N D T P I V R A S G R E L S Y V L  
 SEQ. ID. NO. 47 S G R E L C Y I L L G G V F L C Y C M T F I F I A  
 SEQ. ID. NO. 37 S G R E L C Y I L L G G V F L C Y C M T F I F I A  
 SEQ. ID. NO. 33 L P Q E Y I R W G D A W A V G P V T I A C L G A L

SEQ. ID. NO. 41 L T G I F L C Y S I T F L M I A A P D T I I C S F  
 SEQ. ID. NO. 47 K P S T A V C T L R R L G L G T A F S V C Y S A L  
 SEQ. ID. NO. 37 K P S T A V C T L R R L G L G T A F S V C Y S A L  
 SEQ. ID. NO. 33 A T L F V L G V F V R H N A T P V V K A S G R E L

SEQ. ID. NO. 41 R R V F L G L G M C F S Y A A L L T K T N R I H R  
 SEQ. ID. NO. 47 L T K T N R I A R I F G G A R E G A Q R P R F I S  
 SEQ. ID. NO. 37 L T K T N R I A R I F G G A R E G A Q R P R F I S  
 SEQ. ID. NO. 33 C Y I L L G G V F L C Y C M T F I F I A K P S T A

SEQ. ID. NO. 41 I F E Q G K K S V T A P K F I S P A S Q L V I T F  
 SEQ. ID. NO. 47 P A S Q V A I C L A L I S G Q L L I V V A W L V V  
 SEQ. ID. NO. 37 P A S Q V A I C L A L I S G Q L L I V V A W L V V  
 SEQ. ID. NO. 33 V C T L R R L G L G T A F S V C Y S A L L T K T N

SEQ. ID. NO. 41 S L I S V Q L L G V F V W F V V D P P H I I I D Y  
 SEQ. ID. NO. 47 E A P G T G K E T A P E R R E V V T L R C N H R D  
 SEQ. ID. NO. 37 E A P G T G K E T A P E R R E V V T L R C N H R D  
 SEQ. ID. NO. 33 R I A R I F G G A R E G A Q R P R F I S P A S Q V

SEQ. ID. NO. 41 G E Q R T L D P E K A R G V L K C D I S D L S L I  
 SEQ. ID. NO. 47 A S M L G S L A Y N V L L I A L C T L Y A F K T R  
 SEQ. ID. NO. 37 A S M L G S L A Y N V L L I A L C T L Y A F K T R  
 SEQ. ID. NO. 33 A I C L A L I S G Q L L I V V A W L V V E A P G T

SEQ. ID. NO. 41 C S L G Y S I L L M V T C T V Y A I K T R G V P E  
 SEQ. ID. NO. 47 K C P E N F N E A K F I G F T M Y T T C I I W L A  
 SEQ. ID. NO. 37 K C P E N F N E A K F I G F T M Y T T C I I W L A  
 SEQ. ID. NO. 33 G K E T A P E R R E V V T L R C N H R D A S M L G

SEQ. ID. NO. 41 T F N E A K P I G F T M Y T T C I I W L A F I P I  
 SEQ. ID. NO. 47 F L P I F Y V T S S D Y R V Q T T T M C V S V S L  
 SEQ. ID. NO. 37 F L P I F Y V T S S D Y R V Q T T T M C V S V S L  
 SEQ. ID. NO. 33 S L A Y N V L L I A L C T L Y A F N T R K C P E N

Figure 12d



SEQ. ID. NO. 41 F F G T A Q S A E K M Y I Q T T T L T V S M S L S  
 SEQ. ID. NO. 47 S G S V V L G C L F A P K L H I I L F Q P Q K N T  
 SEQ. ID. NO. 37 S G S V V L G C L F A P K L H I I L F Q P Q K N T  
 SEQ. ID. NO. 33 F N E A K F I G F T M Y T T C I I W L A L L P I F

SEQ. ID. NO. 41 A S V S L G M L Y M P K V Y I I I F H P E Q N T I  
 SEQ. ID. NO. 47 I E E V R C S T A A H A F K V A A R A T L R R S N  
 SEQ. ID. NO. 37 I E E V R C S T A A H A F K V A A R A T L R R S N  
 SEQ. ID. NO. 33 Y V T S S D Y R V Q T T T M C V S V S L S G S V V

SEQ. ID. NO. 41 E E V R C S T A A H A F K V A A R A T L R R S N V  
 SEQ. ID. NO. 47 V S R K R S S S L G G S T G S T P S S S I S S K S  
 SEQ. ID. NO. 37 V S R K R S S S L G G S T G S T P S S S I S S K S  
 SEQ. ID. NO. 33 L G C L F A P K L H I I L F Q P Q K N V V S H R A

SEQ. ID. NO. 41 S R K R S S S L G G S T G S T P S S S I S S K S N  
 SEQ. ID. NO. 47 N S E D P F P Q P E R Q K Q Q Q P L A L T Q Q E Q  
 SEQ. ID. NO. 37 N S E D P F P Q P E R Q K Q Q Q P L A L T Q Q E Q  
 SEQ. ID. NO. 33 P T S R F G S A A A R A S S S L G Q G S G S Q F V

SEQ. ID. NO. 41 S E D P F P Q P E R Q K Q Q Q P L A L T Q Q E Q Q  
 SEQ. ID. NO. 47 Q Q Q P L T L P Q Q Q R S Q Q Q P R C K Q K V I F  
 SEQ. ID. NO. 37 Q Q Q P L T L P Q Q Q R S Q Q Q P R C K Q K V I F  
 SEQ. ID. NO. 33 P T V C N G R E V V D S T T S S L M T L E S I M A

SEQ. ID. NO. 41 Q Q P L T L P Q Q Q R S Q Q Q P R C K Q K V I F G  
 SEQ. ID. NO. 47 G S G T V T F S L S F D E P Q K N A M A H G N S T  
 SEQ. ID. NO. 37 G S G T V T F S L S F D E P Q K N A M A H G N S T  
 SEQ. ID. NO. 33 C C L S E E A K E A R R I N D E I E R Q L R R D K

SEQ. ID. NO. 41 S G T V T F S L S F D E P Q K N A M A H G N S T H  
 SEQ. ID. NO. 47 H Q N S L E A Q K S S D T L T R H Q P L L P L Q C  
 SEQ. ID. NO. 37 H Q N S L E A Q K S S D T L T R H Q P L L P L Q C  
 SEQ. ID. NO. 33 R D A R R E L K L L L L G T G E S G K S T F I K Q

SEQ. ID. NO. 41 Q N S L E A Q K S S D T L T R H Q P L L P L Q C G  
 SEQ. ID. NO. 47 G E T D L D L T V Q E T G L Q G P V G G D Q R P E  
 SEQ. ID. NO. 37 G E T D L D L T V Q E T G L Q G P V G G D Q R P E  
 SEQ. ID. NO. 33 M R I I H G S G Y S D E D K R G F T K L V Y Q N I

Figure 12e

SEQ. ID. NO. 41 E T D L D L T V Q E T G L Q G P V G G D Q R P E V  
 SEQ. ID. NO. 47 V E D P E E L S P A L V V S S S Q S F V I S G G G  
 SEQ. ID. NO. 37 V E D P E E L S P A L V V S S S Q S F V I S G G G  
 SEQ. ID. NO. 33 F T A M Q A M I R A M D T L K I P Y K Y E H N K A

SEQ. ID. NO. 41 E D P E E L S P A L V V S S S Q S F V I S G G G S  
 SEQ. ID. NO. 47 S T V T E N V V N S A A A M T L E S I M A C C L S  
 SEQ. ID. NO. 37 S T V T E N V V N S M T L E S I M A C C L S E E A  
 SEQ. ID. NO. 33 H A Q L V R E V D V E K V S A F E N P Y V D A I K

SEQ. ID. NO. 41 T V T E N V V N S M T L E S I M A C C L S E E A K  
 SEQ. ID. NO. 47 E E A K E A R R I N D E I E R Q L R R D K R D A R  
 SEQ. ID. NO. 37 K E A R R I N D E I E R Q L R R D K R D A R R E L  
 SEQ. ID. NO. 33 S L W N D P G I Q E C Y D R R R E Y Q L S D S T K

SEQ. ID. NO. 41 E A R R I N D E I E R Q L R R D K R D A R R E L K  
 SEQ. ID. NO. 47 R E L K L L L L G T G E S G K S T F I K Q M R I I  
 SEQ. ID. NO. 37 K L L L L G T G E S G K S T F I K Q M R I I H G S  
 SEQ. ID. NO. 33 Y Y L N D L D R V A D P A Y L P T Q Q D V L R V R

SEQ. ID. NO. 41 L L L L G T G E S G K S T F I K Q M R I I H G S G  
 SEQ. ID. NO. 47 H G S G Y S D E D K R G F T K L V Y Q N I F T A M  
 SEQ. ID. NO. 37 G Y S D E D K R G F T K L V Y Q N I F T A M Q A M  
 SEQ. ID. NO. 33 V P T T G I I E Y P F D L Q S V I F R M V D V G G

SEQ. ID. NO. 41 Y S D E D K R G F T K L V Y Q N I F T A M Q A M I  
 SEQ. ID. NO. 47 Q A M I R A M D T L K I P Y K Y E H N K A H A Q L  
 SEQ. ID. NO. 37 I R A M D T L K I P Y K Y E H N K A H A Q L V R E  
 SEQ. ID. NO. 33 Q R S E R R K W I H C F E N V T S I M F L V A L S

SEQ. ID. NO. 41 R A M D T L K I P Y K Y E H N K A H A Q L V R E V  
 SEQ. ID. NO. 47 V R E V D V E K V S A F E N P Y V D A I K S L W N  
 SEQ. ID. NO. 37 V D V E K V S A F E N P Y V D A I K S L W N D P G  
 SEQ. ID. NO. 33 E Y D Q V L V E S D N E N R M E E S K A L F R T I

SEQ. ID. NO. 41 D V E K V S A F E N P Y V D A I K S L W N D P G I  
 SEQ. ID. NO. 47 D P G I Q E C Y D R R R E Y Q L S D S T K Y Y L N  
 SEQ. ID. NO. 37 I Q E C Y D R R R E Y Q L S D S T K Y Y L N D L D  
 SEQ. ID. NO. 33 I T Y P W F Q N S S V I L F L N K K D L L E E K I

Figure 12f

SEQ. ID. NO. 41 Q E C Y D R R R E Y Q L S D S T K Y Y L N D L D R  
 SEQ. ID. NO. 47 D L D R V A D P A Y L P T Q Q D V L R V R V P T T  
 SEQ. ID. NO. 37 R V A D P A Y L P T Q Q D V L R V R V P T T G I I  
 SEQ. ID. NO. 33 M Y S H L V D Y F P E Y D G P Q R D A Q A A R E F

SEQ. ID. NO. 41 V A D P A Y L P T Q Q D V L R V R V P T T G I I E  
 SEQ. ID. NO. 47 G I I E Y P F D L Q S V I F R M V D V G G Q R S E  
 SEQ. ID. NO. 37 E Y P F D L Q S V I F R M V D V G G Q R S E R R K  
 SEQ. ID. NO. 33 I L K M F V D L N P D S D K I I Y S H F T C A T D

SEQ. ID. NO. 41 Y P F D L Q S V I F R M V D V G G Q R S E R R K W  
 SEQ. ID. NO. 47 R R K W I H C F E N V T S I M F L V A L S E Y D Q  
 SEQ. ID. NO. 37 W I H C F E N V T S I M F L V A L S E Y D Q V L V  
 SEQ. ID. NO. 33 T E N I R F V F A A V K D T I L Q L N L K D C G L

SEQ. ID. NO. 41 I H C F E N V T S I M F L V A L S E Y D Q V L V E  
 SEQ. ID. NO. 47 V L V E S D N E N R M E E S K A L F R T I I T Y P  
 SEQ. ID. NO. 37 E S D N E N R M E E S K A L F R T I I T Y P W F Q  
 SEQ. ID. NO. 33 F

SEQ. ID. NO. 41 S D N E N R M E E S K A L F R T I I T Y P W F Q N  
 SEQ. ID. NO. 47 W F Q N S S V I L F L N K K D L L E E K I M Y S H  
 SEQ. ID. NO. 37 N S S V I L F L N K K D L L E E K I M Y S H L V D  
 SEQ. ID. NO. 33

SEQ. ID. NO. 41 S S V I L F L N K K D L L E E K I M Y S H L V D Y  
 SEQ. ID. NO. 47 L V D Y F P E Y D G P Q R D A Q A A R E F I L K M  
 SEQ. ID. NO. 37 Y F P E Y D G P Q R D A Q A A R E F I L K M F V D  
 SEQ. ID. NO. 33

SEQ. ID. NO. 41 F P E Y D G P Q R D A Q A A R E F I L K M F V D L  
 SEQ. ID. NO. 47 F V D L N P D S D K I I Y S H F T C A T D T E N I  
 SEQ. ID. NO. 37 L N P D S D K I I Y S H F T C A T D T E N I R F V  
 SEQ. ID. NO. 33

SEQ. ID. NO. 41 N P D S D K I I Y S H F T C A T D T E N I R F V F  
 SEQ. ID. NO. 47 R F V F A A V K D T I L Q L N L K D C G L F  
 SEQ. ID. NO. 37 F A A V K D T I L Q L N L K D C G L F  
 SEQ. ID. NO. 33

Figure 12g

SEQ. ID. NO. 41 A A V K D T I L Q L N L K D C G L F  
SEQ. ID. NO. 47  
SEQ. ID. NO. 37  
SEQ. ID. NO. 33

Figure 12h

# ClustalW Formatted Alignments

SEQ. ID. NO. 44 A T G T T G C T G C T G C T A C T G G C G C  
SEQ. ID. NO. 42 A T G G C T T C C C C G C G G A G C T C C G G G C

SEQ. ID. NO. 44 C A C T C T T C C T C C G C C C C C G G G C G C  
SEQ. ID. NO. 42 A G C C C G G G C C G C C G C C G C C G C C G C C

SEQ. ID. NO. 44 G G G C G G G G C G C A G A C C C C C A A C G C C  
SEQ. ID. NO. 42 A C C G C C G C C C G C G C G C C T G C T A C T G

SEQ. ID. NO. 44 A C C T C A G A A G G T T G C C A G A T C A T A C  
SEQ. ID. NO. 42 C T A C T G C T G C T G C C G C T G C T G C T G C

SEQ. ID. NO. 44 A C C C G C C C T G G G A A G G G G G C A T C A G  
SEQ. ID. NO. 42 C T C T G G C G C C C G G G G C C T G G G G C T G

SEQ. ID. NO. 44 G T A C C G G G G C C T G A C T C G G G A C C A G  
SEQ. ID. NO. 42 G G C G C G G G G C G C C C C C C G G C C G C C G

SEQ. ID. NO. 44 G T G A A G G C T A T C A A C T T C C T G C C A G  
SEQ. ID. NO. 42 C C C A G C A G C C C G C C G C T C T C C A T C A

SEQ. ID. NO. 44 T G G A C T A T G A G A T T G A G T A T G T G T G  
SEQ. ID. NO. 42 T G G G C C T C A T G C C G C T C A C C A A G G A

SEQ. ID. NO. 44 C C G G G G G G A G C G C G A G G T G G T G G G G  
SEQ. ID. NO. 42 G G T G G C C A A G G G C A G C A T C G G G C G C

SEQ. ID. NO. 44 C C C A A G G T C C G C A A G T G C C T G G C C A  
SEQ. ID. NO. 42 G G T G T G C T C C C C G C C G T G G A A C T G G

SEQ. ID. NO. 44 A C G G C T C C T G G A C A G A T A T G G A C A C  
SEQ. ID. NO. 42 C C A T C G A G C A G A T C C G C A A C G A G T C

SEQ. ID. NO. 44 A C C C A G C C G C T G T G T C C G A A T C T G C  
SEQ. ID. NO. 42 A C T C C T G C G C C C T T A C T T C C T C G A C

Figure 13a

SEQ. ID. NO. 44 T C C A A G T C T T A T T T G A C C C T G G A A A  
SEQ. ID. NO. 42 C T G C G G C T C T A T G A C A C G G A G T G C G

SEQ. ID. NO. 44 A T G G G A A G G T T T T C C T G A C G G G T G G  
SEQ. ID. NO. 42 A C A A C G C A A A A G G G T T G A A A G C C T T

SEQ. ID. NO. 44 G G A C C T C C C A G C T C T G G A C G G A G C C  
SEQ. ID. NO. 42 C T A C G A T G C A A T A A A A T A C G G G C C G

SEQ. ID. NO. 44 C G G G T G G A T T T C C G G T G T G A C C C C G  
SEQ. ID. NO. 42 A A C C A C T T G A T G G T G T T T G G A G G C G

SEQ. ID. NO. 44 A C T T C C A T C T G G T G G G C A G C T C C C G  
SEQ. ID. NO. 42 T C T G T C C A T C C G T C A C A T C C A T C A T

SEQ. ID. NO. 44 G A G C A T C T G T A G T C A G G G C C A G T G G  
SEQ. ID. NO. 42 T G C A G A G T C C C T C C A A G G C T G G A A T

SEQ. ID. NO. 44 A G C A C C C C C A A G C C C C A C T G C C A G G  
SEQ. ID. NO. 42 C T G G T G C A G C T T T C T T T T G C T G C A A

SEQ. ID. NO. 44 T G A A T C G A A C G C C A C A C T C A G A A C G  
SEQ. ID. NO. 42 C C A C G C C T G T T C T A G C C G A T A A G A A

SEQ. ID. NO. 44 G C G C G C A G T G T A C A T C G G G G C A C T G  
SEQ. ID. NO. 42 A A A A T A C C C T T A T T T C T T T C G G A C C

SEQ. ID. NO. 44 T T T C C C A T G A G C G G G G G C T G G C C A G  
SEQ. ID. NO. 42 G T C C C A T C A G A C A A T G C G G T G A A T C

SEQ. ID. NO. 44 G G G G C C A G G C C T G C C A G C C C G C G G T  
SEQ. ID. NO. 42 C A G C C A T T C T G A A G T T G C T C A A G C A

SEQ. ID. NO. 44 G G A G A T G G C G C T G G A G G A C G T G A A T  
SEQ. ID. NO. 42 C T A C C A G T G G A A G C G C G T G G G C A C G

SEQ. ID. NO. 44 A G C C G C A G G G A C A T C C T G C C G G A C T  
SEQ. ID. NO. 42 C T G A C G C A A G A C G T T C A G A G G T T C T

Figure 13b

SEQ. ID. NO. 44 A T G A G C T C A A G C T C A T C C A C C A C G A  
SEQ. ID. NO. 42 C T G A G G T G C G G A A T G A C C T G A C T G G

SEQ. ID. NO. 44 C A G C A A G T G T G A T C C A G G C C A A G C C  
SEQ. ID. NO. 42 A G T T C T G T A T G G C G A G G A C A T T G A G

SEQ. ID. NO. 44 A C C A A G T A C C T A T A T G A G C T G C T C T  
SEQ. ID. NO. 42 A T T T C A G A C A C C G A G A G C T T C T C C A

SEQ. ID. NO. 44 A C A A C G A C C C T A T C A A G A T C A T C C T  
SEQ. ID. NO. 42 A C G A T C C C T G T A C C A G T G T C A A A A A

SEQ. ID. NO. 44 T A T G C C T G G C T G C A G C T C T G T C T C C  
SEQ. ID. NO. 42 G C T G A A G G G G A A T G A T G T G C G G A T C

SEQ. ID. NO. 44 A C G C T G G T G G C T G A G G C T G C T A G G A  
SEQ. ID. NO. 42 A T C C T T G G C C A G T T T G A C C A G A A T A

SEQ. ID. NO. 44 T G T G G A A C C T C A T T G T G C T T T C C T A  
SEQ. ID. NO. 42 T G G C A G C A A A A G T G T T C T G T T G T G C

SEQ. ID. NO. 44 T G G C T C C A G C T C A C C A G C C C T G T C A  
SEQ. ID. NO. 42 A T A C G A G G A G A A C A T G T A T G G T A G T

SEQ. ID. NO. 44 A A C C G G C A G C G T T T C C C C A C T T T C T  
SEQ. ID. NO. 42 A A A T A T C A G T G G A T C A T T C C G G G C T

SEQ. ID. NO. 44 T C C G A A C G C A C C C A T C A G C C A C A C T  
SEQ. ID. NO. 42 G G T A C G A G C C T T C T T G G T G G G A G C A

SEQ. ID. NO. 44 C C A C A A C C C T A C C C G C G T G A A A C T C  
SEQ. ID. NO. 42 G G T G C A C A C G G A A G C C A A C T C A T C C

SEQ. ID. NO. 44 T T T G A A A A G T G G G G C T G G A A G A A G A  
SEQ. ID. NO. 42 C G C T G C C T C C G G A A G A A T C T G C T T G

SEQ. ID. NO. 44 T T G C T A C C A T C C A G C A G A C C A C T G A  
SEQ. ID. NO. 42 C T G C C A T G G A G G G C T A C A T T G G C G T

Figure 13c

SEQ. ID. NO. 44 GGTCTTCACTTCGACTCTGGACGAC  
SEQ. ID. NO. 42 GGATTTTCGAGCCCCCTGAGCTCCAAG

SEQ. ID. NO. 44 CTGGAGGAACGAGTGAAGGAGGCTG  
SEQ. ID. NO. 42 CAGATCAAGACCATCTCAGGAAAGA

SEQ. ID. NO. 44 GAATTGAGATTACTTTCCGCCAGAG  
SEQ. ID. NO. 42 CTCCACAGCAGTATGAGAGAGAGTA

SEQ. ID. NO. 44 TTTCTTCTCAGATCCAGCTGTGCCC  
SEQ. ID. NO. 42 CAACAACAAGCGGTCAGGCGTGGGG

SEQ. ID. NO. 44 GTCAAAAACCTGAAGCGCCAGGATG  
SEQ. ID. NO. 42 CCCAGCAAGTTCCACGGGTACGCCT

SEQ. ID. NO. 44 CCCGAATCATCTGTGGGACTTTTCTA  
SEQ. ID. NO. 42 ACGATGGCATCTGGGTCATCGCCAA

SEQ. ID. NO. 44 TGAGACTGAAGCCCCGGAAAGTTT TT  
SEQ. ID. NO. 42 GACACTGCAGAGGGCCATGGAGACA

SEQ. ID. NO. 44 TGTGAGGTGTACAAGGAGCGTCTCT  
SEQ. ID. NO. 42 CTGCATGCCAGCAGCCGGCACCCAGC

SEQ. ID. NO. 44 TTGGGAAGAAAGTACGTCTGGTTCCCT  
SEQ. ID. NO. 42 GGATCCAGGACTTCAACTACACGGA

SEQ. ID. NO. 44 CATTTGGGTGGTATGCTGACAATTGG  
SEQ. ID. NO. 42 CCACACGCTGGGCAAGGATCATCCTC

SEQ. ID. NO. 44 TTCAAGATCTACGACCCTTCTATCA  
SEQ. ID. NO. 42 AATGCCATGAACGAGACCAACTTCT

SEQ. ID. NO. 44 ACTGCACAGTGGATGAGATGACTGA  
SEQ. ID. NO. 42 TCGGGGTCAACGGGTCAAGTTGTATT

SEQ. ID. NO. 44 GGCGGTGGAGGGCCACATCAAACT  
SEQ. ID. NO. 42 CCGGAATGGGGAGAGAAATGGGGACC

Figure 13d



SEQ. ID. NO. 44 G A G A T T G T C A T G C T G A A T C C T G C C A  
SEQ. ID. NO. 42 A T T A A A T T T A C T C A A T T T C A A G A C A

SEQ. ID. NO. 44 A T A C C C G C A G C A T T T C C A A C A T G A C  
SEQ. ID. NO. 42 G C A G G G A G G T G A A G G T G G G A G A G T A

SEQ. ID. NO. 44 A T C C C A G G A A T T T G T G G A G A A A C T A  
SEQ. ID. NO. 42 C A A C G C T G T G G C C G A C A C A C T G G A G

SEQ. ID. NO. 44 A C C A A G C G A C T G A A A A G A C A C C C T G  
SEQ. ID. NO. 42 A T C A T C A A T G A C A C C A T C A G G T T C C

SEQ. ID. NO. 44 A G G A G A C A G G A G G C T T C C A G G A G G C  
SEQ. ID. NO. 42 A A G G A T C C G A A C C A C C A A A A G A C A A

SEQ. ID. NO. 44 A C C G C T G G C C T A T G A T G C C A T C T G G  
SEQ. ID. NO. 42 G A C C A T C A T C C T G G A G C A G C T G C G G

SEQ. ID. NO. 44 G C C T T G G C A C T G G C C C T G A A C A A G A  
SEQ. ID. NO. 42 A A G A T C T C C C T A C C T C T C T A C A G C A

SEQ. ID. NO. 44 C A T C T G G A G G A G G C G G C C G T T C T G G  
SEQ. ID. NO. 42 T C C T C T C T G C C C T C A C C A T C C T C G G

SEQ. ID. NO. 44 T G T G C G C C T G G A G G A C T T C A A C T A C  
SEQ. ID. NO. 42 G A T G A T C A T G G C C A G T G C T T T T C T C

SEQ. ID. NO. 44 A A C A A C C A G A C C A T T A C C G A C C A A A  
SEQ. ID. NO. 42 T T C T T C A A C A T C A A G A A C C G G A A T C

SEQ. ID. NO. 44 T C T A C C G G G C A A T G A A C T C T T C G T C  
SEQ. ID. NO. 42 A G A A G C T C A T A A A G A T G T C G A G T C C

SEQ. ID. NO. 44 C T T T G A G G G T G T C T C T G G C C A T G T G  
SEQ. ID. NO. 42 A T A C A T G A A C A A C C T T A T C A T C C T T

SEQ. ID. NO. 44 G T G T T T G A T G C C A G C G G C T C T C G G A  
SEQ. ID. NO. 42 G G A G G G A T G C T C T C C T A T G C T T C C A

Figure 13e

SEQ. ID. NO. 44 T G G C A T G G A C G C T T A T C G A G C A G C T  
SEQ. ID. NO. 42 T A T T T C T C T T T G G C C T T G A T G G A T C

SEQ. ID. NO. 44 T C A G G G T G G C A G C T A C A A G A A G A T T  
SEQ. ID. NO. 42 C T T T G T C T C T G A A A A G A C C T T T G A A

SEQ. ID. NO. 44 G G C T A C T A T G A C A G C A C C A A G G A T G  
SEQ. ID. NO. 42 A C A C T T T G C A C C G T C A G G A C C T G G A

SEQ. ID. NO. 44 A T C T T T C C T G G T C C A A A A C A G A T A A  
SEQ. ID. NO. 42 T T C T C A C C G T G G G C T A C A C G A C C G C

SEQ. ID. NO. 44 A T G G A T T G G A G G G T C C C C C C C A G C T  
SEQ. ID. NO. 42 T T T T G G G G C C A T G T T T G C A A A G A C C

SEQ. ID. NO. 44 G A C C A G A C C C T G G T C A T C A A G A C A T  
SEQ. ID. NO. 42 T G G A G A G T C C A C G C C A T C T T C A A A A

SEQ. ID. NO. 44 T C C G C T T C C T G T C A C A G A A A C T C T T  
SEQ. ID. NO. 42 A T G T G A A A A T G A A G A A G A A G A T C A T

SEQ. ID. NO. 44 T A T C T C C G T C T C A G T T C T C T C C A G C  
SEQ. ID. NO. 42 C A A G G A C C A G A A A C T G C T T G T G A T C

SEQ. ID. NO. 44 C T G G G C A T T G T C C T A G C T G T T G T C T  
SEQ. ID. NO. 42 G T G G G G G G C A T G C T G C T G A T C G A C C

SEQ. ID. NO. 44 G T C T G T C C T T T A A C A T C T A C A A C T C  
SEQ. ID. NO. 42 T G T G T A T C C T G A T C T G C T G G C A G G C

SEQ. ID. NO. 44 A C A T G T C C G T T A T A T C C A G A A C T C A  
SEQ. ID. NO. 42 T G T G G A C C C C C T G C G A A G G A C A G T G

SEQ. ID. NO. 44 C A G C C C A A C C T G A A C A A C C T G A C T G  
SEQ. ID. NO. 42 G A G A A G T A C A G C A T G G A G C C G G A C C

SEQ. ID. NO. 44 C T G T G G G C T G C T C A C T G G C T T T A G C  
SEQ. ID. NO. 42 C A G C A G G A C G G G A T A T C T C C A T C C G

Figure 13f

SEQ. ID. NO. 44 T G C T G T C T T C C C C C T G G G G C T C G A T  
 SEQ. ID. NO. 42 C C C T C T C C T G G A G C A C T G T G A G A A C

SEQ. ID. NO. 44 G G T T A C C A C A T T G G G A G G A A C C A G T  
 SEQ. ID. NO. 42 A C C C A T A T G A C C A T C T G G C T T G G C A

SEQ. ID. NO. 44 T T C C T T T C G T C T G C C A G G C C C G C C T  
 SEQ. ID. NO. 42 T C G T C T A T G C C T A C A A G G G A C T T C T

SEQ. ID. NO. 44 C T G G C T C C T G G G C C T G G G C T T T A G T  
 SEQ. ID. NO. 42 C A T G T T G T T C G G T T G T T T C T T A G C T

SEQ. ID. NO. 44 C T G G G C T A C G G T T C C A T G T T C A C C A  
 SEQ. ID. NO. 42 T G G G A G A C C C G C A A C G T C A G C A T C C

SEQ. ID. NO. 44 A G A T T T G G T G G G T C C A C A C G G T C T T  
 SEQ. ID. NO. 42 C C G C A C T C A A C G A C A G C A A G T A C A T

SEQ. ID. NO. 44 C A C A A A G A A G G A A G A A A A G A A G G A G  
 SEQ. ID. NO. 42 C G G G A T G A G T G T C T A C A A C G T G G G G

SEQ. ID. NO. 44 T G G A G G A A G A C T C T G G A A C C C T G G A  
 SEQ. ID. NO. 42 A T C A T G T G C A T C A T C G G G G C C G C T G

SEQ. ID. NO. 44 A G C T G T A T G C C A C A G T G G G C C T G C T  
 SEQ. ID. NO. 42 T C T C C T T C C T G A C C C G G G A C C A G C C

SEQ. ID. NO. 44 G G T G G G C A T G G A T G T C C T C A C T C T C  
 SEQ. ID. NO. 42 C A A T G T G C A G T T C T G C A T C G T G G C T

SEQ. ID. NO. 44 G C C A T C T G G C A G A T C G T G G A C C C T C  
 SEQ. ID. NO. 42 C T G G T C A T C A T C T T C T G C A G C A C C A

SEQ. ID. NO. 44 T G C A C C G G A C C A T T G A G A C A T T T G C  
 SEQ. ID. NO. 42 T C A C C C T C T G C C T G G T A T T C G T G C C

SEQ. ID. NO. 44 C A A G G A G G A A C C T A A G G A A G A T A T T  
 SEQ. ID. NO. 42 G A A G C T C A T C A C C C T G A G A A C A A A C

Figure 13g

SEQ. ID. NO. 44 G A C G T C T C T A T T C T G C C C C A G C T G G  
SEQ. ID. NO. 42 C C A G A T G C A G C A A C G C A G A A C A G G C

SEQ. ID. NO. 44 A G C A T T G C A G C T C C A G G A A G A T G A A  
SEQ. ID. NO. 42 G A T T C C A G T T C A C T C A G A A T C A G A A

SEQ. ID. NO. 44 T A C A T G G C T T G G C A T T T T C T A T G G T  
SEQ. ID. NO. 42 G A A A G A A G A T T C T A A A A C G T C C A C C

SEQ. ID. NO. 44 T A C A A G G G G C T G C T G C T G C T G C T G G  
SEQ. ID. NO. 42 T C G G T C A C C A G T G T G A A C C A A G C C A

SEQ. ID. NO. 44 G A A T C T T C C T T G C T T A T G A G A C C A A  
SEQ. ID. NO. 42 G C A C A T C C C G C C T G G A G G G C C T A C A

SEQ. ID. NO. 44 G A G T G T G T C C A C T G A G A A G A T C A A T  
SEQ. ID. NO. 42 G T C A G A A A A C C A T C G C C T G C G A A T G

SEQ. ID. NO. 44 G A T C A C C G G G C T G T G G G C A T G G C T A  
SEQ. ID. NO. 42 A A G A T C A C A G A G C T G G A T A A A G A C T

SEQ. ID. NO. 44 T C T A C A A T G T G G C A G T C C T G T G C C T  
SEQ. ID. NO. 42 T G G A A G A G G T C A C C A T G C A G C T G C A

SEQ. ID. NO. 44 C A T C A C T G C T C C T G T C A C C A T G A T T  
SEQ. ID. NO. 42 G G A C A C A C C A G A A A A G A C C A C C T A C

SEQ. ID. NO. 44 C T G T C C A G C C A G C A G G A T G C A G C C T  
SEQ. ID. NO. 42 A T T A A A C A G A A C C A C T A C C A A G A G C

SEQ. ID. NO. 44 T T G C C T T T G C C T C T C T T G C C A T A G T  
SEQ. ID. NO. 42 T C A A T G A C A T C C T C A A C C T G G G A A A

SEQ. ID. NO. 44 T T T C T C C T C C T A T A T C A C T C T T G T T  
SEQ. ID. NO. 42 C T T C A C T G A G A G C A C A G A T G G A G G A

SEQ. ID. NO. 44 G T G C T C T T T G T G C C C A A G A T G C G C A  
SEQ. ID. NO. 42 A A G G C C A T T T T A A A A A A T C A C C T C G

Figure 13h

SEQ. ID. NO. 44 G G C T G A T C A C C C G A G G G G A A T G G C A  
SEQ. ID. NO. 42 A T C A A A A T C C C C A G C T A C A G T G G A A

SEQ. ID. NO. 44 G T C G G A G G C G C A G G A C A C C A T G A A G  
SEQ. ID. NO. 42 C A C A A C A G A G C C C T C T C G A A C A T G C

SEQ. ID. NO. 44 A C A G G G T C A T C G A C C A A C A A C A A C G  
SEQ. ID. NO. 42 A A A G A T C C T A T A G A A G A T A T A A A C T

SEQ. ID. NO. 44 A G G A G G A G A A G T C C C G G C T G T T G G A  
SEQ. ID. NO. 42 C T C C A G A A C A C A T C C A G C G T C G G C T

SEQ. ID. NO. 44 G A A G G A G A A C C G T G A A C T G G A A A A G  
SEQ. ID. NO. 42 G T C C C T C C A G C T C C C C A T C C T C C A C

SEQ. ID. NO. 44 A T C A T T G C T G A G A A A G A G G A G C G T G  
SEQ. ID. NO. 42 C A C G C C T A C C T C C C A T C C A T C G G A G

SEQ. ID. NO. 44 T C T C T G A A C T G C G C C A T C A A C T C C A  
SEQ. ID. NO. 42 G C G T G G A C G C C A G C T G T G T C A G C C C

SEQ. ID. NO. 44 G T C T C G G C A G C A G C T C C G C T C C C G G  
SEQ. ID. NO. 42 C T G C G T C A G C C C C A C C G C C A G C C C C

SEQ. ID. NO. 44 C G C C A C C C A C C G A C A C C C C C A G A A C  
SEQ. ID. NO. 42 C G C C A C A G A C A T G T G C C A C C C T C C T

SEQ. ID. NO. 44 C C T C T G G G G G C C T G C C C A G G G G A C C  
SEQ. ID. NO. 42 T C C G A G T C A T G G T C T C G G G C C T G G C

SEQ. ID. NO. 44 C C C T G A G C C C C C C G A C C G G C T T A G C  
SEQ. ID. NO. 42 G G C C G C C A T G A C T C T G G A G T C C A T C

SEQ. ID. NO. 44 T G T G A T G G G A G T C G A G T G C A T T T G C  
SEQ. ID. NO. 42 A T G G C G T G C T G C C T G A G C G A G G A G G

SEQ. ID. NO. 44 T T T A T A A G G C G G C C G C C A T G A C T C T  
SEQ. ID. NO. 42 C C A A G G A A G C C C G G C G G A T C A A C G A

SEQ. ID. NO. 44 G G A G T C C A T C A T G G C G T G C T G C C T G  
 SEQ. ID. NO. 42 C G A G A T C G A G C G G C A G C T C C G C A G G

SEQ. ID. NO. 44 A G C G A G G A G G C C A A G G A A G C C C G G C  
 SEQ. ID. NO. 42 G A C A A G C G G G A C G C C C G C C G G G A G C

SEQ. ID. NO. 44 G G A T C A A C G A C G A G A T C G A G C G G C A  
 SEQ. ID. NO. 42 T C A A G C T G C T G C T G C T C G G G A C A G G

SEQ. ID. NO. 44 G C T C C G C A G G G A C A A G C G G G A C G C C  
 SEQ. ID. NO. 42 A G A G A G T G G C A A G A G T A C G T T T A T C

SEQ. ID. NO. 44 C G C C G G G A G C T C A A G C T G C T G C T G C  
 SEQ. ID. NO. 42 A A G C A G A T G A G A A T C A T C C A T G G G T

SEQ. ID. NO. 44 T C G G G A C A G G A G A G A G T G G C A A G A G  
 SEQ. ID. NO. 42 C A G G A T A C T C T G A T G A A G A T A A A A G

SEQ. ID. NO. 44 T A C G T T T A T C A A G C A G A T G A G A A T C  
 SEQ. ID. NO. 42 G G G C T T C A C C A A G C T G G T G T A T C A G

SEQ. ID. NO. 44 A T C C A T G G G T C A G G A T A C T C T G A T G  
 SEQ. ID. NO. 42 A A C A T C T T C A C G G C C A T G C A G G C C A

SEQ. ID. NO. 44 A A G A T A A A A G G G G C T T C A C C A A G C T  
 SEQ. ID. NO. 42 T G A T C A G A G C C A T G G A C A C A C T C A A

SEQ. ID. NO. 44 G G T G T A T C A G A A C A T C T T C A C G G C C  
 SEQ. ID. NO. 42 G A T C C C A T A C A A G T A T G A G C A C A A T

SEQ. ID. NO. 44 A T G C A G G C C A T G A T C A G A G C C A T G G  
 SEQ. ID. NO. 42 A A G G C T C A T G C A C A A T T A G T T C G A G

SEQ. ID. NO. 44 A C A C A C T C A A G A T C C C A T A C A A G T A  
 SEQ. ID. NO. 42 A A G T T G A T G T G G A G A A G G T G T C T G C

SEQ. ID. NO. 44 T G A G C A C A A T A A G G C T C A T G C A C A A  
 SEQ. ID. NO. 42 T T T T G A G A A T C C A T A T G T A G A T G C A

Figure 13j

SEQ. ID. NO. 44 T T A G T T C G A G A A G T T G A T G T G G A G A  
 SEQ. ID. NO. 42 A T A A A G A G T T T A T G G A A T G A T C C T G

SEQ. ID. NO. 44 A G G T G T C T G C T T T T G A G A A T C C A T A  
 SEQ. ID. NO. 42 G A A T C C A G G A A T G C T A T G A T A G A C G

SEQ. ID. NO. 44 T G T A G A T G C A A T A A A G A G T T T A T G G  
 SEQ. ID. NO. 42 A C G A G A A T A T C A A T T A T C T G A C T C T

SEQ. ID. NO. 44 A A T G A T C C T G G A A T C C A G G A A T G C T  
 SEQ. ID. NO. 42 A C C A A A T A C T A T C T T A A T G A C T T G G

SEQ. ID. NO. 44 A T G A T A G A C G A C G A G A A T A T C A A T T  
 SEQ. ID. NO. 42 A C C G C G T A G C T G A C C C T G C C T A C C T

SEQ. ID. NO. 44 A T C T G A C T C T A C C A A A T A C T A T C T T  
 SEQ. ID. NO. 42 G C C T A C G C A A C A A G A T G T G C T T A G A

SEQ. ID. NO. 44 A A T G A C T T G G A C C G C G T A G C T G A C C  
 SEQ. ID. NO. 42 G T T C G A G T C C C C A C C A C A G G G A T C A

SEQ. ID. NO. 44 C T G C C T A C C T G C C T A C G C A A C A A G A  
 SEQ. ID. NO. 42 T C G A A T A C C C C T T T G A C T T A C A A A G

SEQ. ID. NO. 44 T G T G C T T A G A G T T C G A G T C C C C A C C  
 SEQ. ID. NO. 42 T G T C A T T T T C A G A A T G G T C G A T G T A

SEQ. ID. NO. 44 A C A G G G A T C A T C G A A T A C C C C T T T G  
 SEQ. ID. NO. 42 G G G G G C C A A A G G T C A G A G A G A A G A A

SEQ. ID. NO. 44 A C T T A C A A A G T G T C A T T T T C A G A A T  
 SEQ. ID. NO. 42 A A T G G A T A C A C T G C T T T G A A A A T G T

SEQ. ID. NO. 44 G G T C G A T G T A G G G G G C C A A A G G T C A  
 SEQ. ID. NO. 42 C A C C T C T A T C A T G T T T C T A G T A G C G

SEQ. ID. NO. 44 G A G A G A A G A A A A T G G A T A C A C T G C T  
 SEQ. ID. NO. 42 C T T A G T G A A T A T G A T C A A G T T C T G G

Figure 13k

SEQ. ID. NO. 44 T T G A A A A T G T C A C C T C T A T C A T G T T  
 SEQ. ID. NO. 42 T G G A G T C A G A C A A T G A G A A C C G A A T

SEQ. ID. NO. 44 T C T A G T A G C G C T T A G T G A A T A T G A T  
 SEQ. ID. NO. 42 G G A G G A A A G C A A G G C T C T C T T T A G A

SEQ. ID. NO. 44 C A A G T T C T C G T G G A G T C A G A C A A T G  
 SEQ. ID. NO. 42 A C A A T T A T C A C A T A C C C C T G G T T C C

SEQ. ID. NO. 44 A G A A C C G A A T G G A G G A A A G C A A G G C  
 SEQ. ID. NO. 42 A G A A C T C C T C G G T T A T T C T G T T C T T

SEQ. ID. NO. 44 T C T C T T T A G A A C A A T T A T C A C A T A C  
 SEQ. ID. NO. 42 A A A C A A G A A A G A T C T T C T A G A G G A G

SEQ. ID. NO. 44 C C C T G G T T C C A G A A C T C C T C G G T T A  
 SEQ. ID. NO. 42 A A A A T C A T G T A T T C C C A T C T A G T C G

SEQ. ID. NO. 44 T T C T G T T C T T A A A C A A G A A A G A T C T  
 SEQ. ID. NO. 42 A C T A C T T C C C A G A A T A T G A T G G A C C

SEQ. ID. NO. 44 T C T A G A G G A G A A A A T C A T G T A T T C C  
 SEQ. ID. NO. 42 C C A G A G A G A T G C C C A G G C A G C C C G A

SEQ. ID. NO. 44 C A T C T A G T C G A C T A C T T C C C A G A A T  
 SEQ. ID. NO. 42 G A A T T C A T T C T G A A G A T G T T C G T G G

SEQ. ID. NO. 44 A T G A T G G A C C C C A G A G A G A T G C C C A  
 SEQ. ID. NO. 42 A C C T G A A C C C A G A C A G T G A C A A A A T

SEQ. ID. NO. 44 G G C A G C C C G A G A A T T C A T T C T G A A G  
 SEQ. ID. NO. 42 T A A C T A C T C C C A C T T C A C G T G C G C C

SEQ. ID. NO. 44 A T G T T C G T G G A C C T G A A C C C A G A C A  
 SEQ. ID. NO. 42 A C A G A C A C C G A G A A T A T C C G C T T T G

SEQ. ID. NO. 44 G T G A C A A A A T T A T C T A C T C C C A C T T  
 SEQ. ID. NO. 42 T C T T T G C T G C C G T C A A G G A C A C C A T



SEQ. ID. NO. 44 C A C G T G C G C C A C A G A C A C C G A G A A T  
SEQ. ID. NO. 42 C C T C C A G T T G A A C C T G A A G G G C T G C

SEQ. ID. NO. 44 A T C C G C T T T G T C T T T G C T G C C G T C A  
SEQ. ID. NO. 42 G G T C T G T A C

SEQ. ID. NO. 44 A G G A C A C C A T C C T C C A G T T G A A C C T  
SEQ. ID. NO. 42

SEQ. ID. NO. 44 G A A G G G C T G C G G T C T G T A C  
SEQ. ID. NO. 42

Figure 13M

# ClustalW Formatted Alignments

SEQ. ID. NO. 45 M L L L L L L A P L F L R P P G A G G A Q T P N A  
SEQ. ID. NO. 43 M A S P R S S G Q P G P P P P P P P P A R L L L

SEQ. ID. NO. 45 T S E G C Q I I H P P W E G G I R Y R G L T R D Q  
SEQ. ID. NO. 43 L L L L P L L L P L A P G A W G W A R G A P R P P

SEQ. ID. NO. 45 V K A I N F L P V D Y E I E Y V C R G E R E V V G  
SEQ. ID. NO. 43 P S S P P L S I M G L M P L T K E V A K G S I G R

SEQ. ID. NO. 45 P K V R K C L A N G S W T D M D T P S R C V R I C  
SEQ. ID. NO. 43 G V L P A V E L A I E Q I R N E S L L R P Y F L D

SEQ. ID. NO. 45 S K S Y L T L E N G K V F L T G G D L P A L D G A  
SEQ. ID. NO. 43 L R L Y D T E C D N A K G L K A F Y D A I K Y G P

SEQ. ID. NO. 45 R V D F R C D P D F H L V G S S R S I C S Q G Q W  
SEQ. ID. NO. 43 N H L M V F G G V C P S V T S I I A E S L Q G W N

SEQ. ID. NO. 45 S T P K P H C Q V N R T P H S E R R A V Y I G A L  
SEQ. ID. NO. 43 L V Q L S F A A T T P V L A D K K K Y P Y F F R T

SEQ. ID. NO. 45 F P M S G G W P G G Q A C Q P A V E M A L E D V N  
SEQ. ID. NO. 43 V P S D N A V N P A I L K L L K H Y Q W K R V G T

SEQ. ID. NO. 45 S R R D I L P D Y E L K L I H H D S K C D P G Q A  
SEQ. ID. NO. 43 L T Q D V Q R F S E V R N D L T G V L Y G E D I E

SEQ. ID. NO. 45 T K Y L Y E L L Y N D P I K I I L M P G C S S V S  
SEQ. ID. NO. 43 I S D T E S F S N D P C T S V K K L K G N D V R I

SEQ. ID. NO. 45 T L V A E A A R M W N L I V L S Y G S S S P A L S  
SEQ. ID. NO. 43 I L G Q F D Q N M A A K V F C C A Y E E N M Y G S

SEQ. ID. NO. 45 N R Q R F P T F F R T H P S A T L H N P T R V K L  
SEQ. ID. NO. 43 K Y Q W I I P G W Y E P S W W E Q V H T E A N S S

Figure 14a

SEQ. ID. NO. 45 F E K W G W K K I A T I Q Q T T E V F T S T L D D  
SEQ. ID. NO. 43 R C L R K N L L A A M E G Y I G V D F E P L S S K

SEQ. ID. NO. 45 L E E R V K E A G I E I T F R Q S F F S D P A V P  
SEQ. ID. NO. 43 Q I K T I S G K T P Q Q Y E R E Y N N K R S G V G

SEQ. ID. NO. 45 V K N L K R Q D A R I I V G L F Y E T E A R K V F  
SEQ. ID. NO. 43 P S K F H G Y A Y D G I W V I A K T L Q R A M E T

SEQ. ID. NO. 45 C E V Y K E R L F G K K Y V W F L I G W Y A D N W  
SEQ. ID. NO. 43 L H A S S R H Q R I Q D F N Y T D H T L G R I I L

SEQ. ID. NO. 45 F K I Y D P S I N C T V D E M T E A V E G H I T T  
SEQ. ID. NO. 43 N A M N E T N P F G V T G Q V V F R N G E R M G T

SEQ. ID. NO. 45 E I V M L N P A N T R S I S N M T S Q E F V E K L  
SEQ. ID. NO. 43 I K F T Q F Q D S R E V K V G E Y N A V A D T L E

SEQ. ID. NO. 45 T K R L K R H P E E T G G - F Q E A P L A Y D A I  
SEQ. ID. NO. 43 I I N D T I R F Q G S E P P K D K T I I L E Q L R

SEQ. ID. NO. 45 W A L A L A L N K T S G G G G R S G V R L E D F N  
SEQ. ID. NO. 43 K I S L P L Y S I L S A L T I L G M I M A S A F L

SEQ. ID. NO. 45 Y N N Q T I T D Q I Y R A M N S S S F E G V S G H  
SEQ. ID. NO. 43 F F N I K N R N Q K L I K M S S P Y M N N L I I L

SEQ. ID. NO. 45 V V F D A S G S R M A W T L I E Q L Q G G S Y K K  
SEQ. ID. NO. 43 G G M L S Y A S I F L F G L D G S F V S E K T F E

SEQ. ID. NO. 45 I G Y Y D S T K D D L S W S K T D K W I G G S P P  
SEQ. ID. NO. 43 T L C T V R T W I L T V G Y T T A F G A M F A K T

SEQ. ID. NO. 45 A D Q T L V I K T F R F L S Q K L F I S V S V L S  
SEQ. ID. NO. 43 W R V H A I F K N V K M K K K I I K D Q K L L V I

SEQ. ID. NO. 45 S L C I V L A V V C L S F N I Y N S H V R Y I Q N  
SEQ. ID. NO. 43 V G G M L L I D L C I L I C W Q A V D P L R R T V

Figure 14b

SEQ. ID. NO. 45 S Q P N L N N L T A V G C S L A L A A V F P L G L  
SEQ. ID. NO. 43 E K Y S M E P D P A G R D I S I R P L L E H C E N

SEQ. ID. NO. 45 D G Y H I G R N Q F P F V C Q A R L W L L G L G F  
SEQ. ID. NO. 43 T H M T I W L G I V Y A Y K G L L M L F G C F L A

SEQ. ID. NO. 45 S L G Y G S M F T K I W W V H T V F T K K E E K K  
SEQ. ID. NO. 43 W E T R N V S I P A L N D S K Y I G M S V Y N V G

SEQ. ID. NO. 45 E W R K T L E P W K L Y A T V G L L V G M D V L T  
SEQ. ID. NO. 43 I M C I I G A A V S F L T R D Q P N V Q F C I V A

SEQ. ID. NO. 45 L A I W Q I V D P L H R T I E T F A K E E P K E D  
SEQ. ID. NO. 43 L V I I F C S T I T L C L V F V P K L I T L R T N

SEQ. ID. NO. 45 I D V S I L P Q L E H C S S R K M N T W L G I F Y  
SEQ. ID. NO. 43 P D A A T Q N R R F Q F T Q N Q K K E D S K T S T

SEQ. ID. NO. 45 G Y K G L L L L L G I F L A Y E T K S V S T E K I  
SEQ. ID. NO. 43 S V T S V N Q A S T S R L E G L Q S E N H R L R M

SEQ. ID. NO. 45 N D H R A V G M A I Y N V A V L C L I T A P V T M  
SEQ. ID. NO. 43 K I T E L D K D L E E V T M Q L Q D T P E K T T Y

SEQ. ID. NO. 45 I L S S Q Q D A A F A F A S L A I V F S S Y I T L  
SEQ. ID. NO. 43 I K Q N H Y Q E L N D I L N L G N F T E S T D G G

SEQ. ID. NO. 45 V V L F V P K M R R L I T R G E W Q S E A Q D T M  
SEQ. ID. NO. 43 K A I L K N H L D Q N P Q L Q W N T T E P S R T C

SEQ. ID. NO. 45 K T G S S T N N N E E E K S R L L E K E N R E L E  
SEQ. ID. NO. 43 K D P I E D I N S P E H I Q R R L S L Q L P I L H

SEQ. ID. NO. 45 K I I A E K E E R V S E L R H Q L Q S R Q Q L R S  
SEQ. ID. NO. 43 H A Y L P S I G G V D A S C V S P C V S P T A S P

SEQ. ID. NO. 45 R R H P P T P P E P S G G L P R G P P E P P D R L  
SEQ. ID. NO. 43 R H R H V P P S F R V M V S G L A A A M T L E S I

Figure 14c

SEQ. ID. NO. 45 S C D G S R V H L L Y K A A A M T L E S I M A C C  
SEQ. ID. NO. 43 M A C C L S E E A K E A R R I N D E I E R Q L R R

SEQ. ID. NO. 45 L S E E A K E A R R I N D E I E R Q L R R D K R D  
SEQ. ID. NO. 43 D K R D A R R E L K L L L L G T G E S G K S T F I

SEQ. ID. NO. 45 A R R E L K L L L L G T G E S G K S T F I K Q M R  
SEQ. ID. NO. 43 K Q M R I I H G S G Y S D E D K R G F T K L V Y Q

SEQ. ID. NO. 45 I I H G S G Y S D E D K R G F T K L V Y Q N I F T  
SEQ. ID. NO. 43 N I F T A M Q A M I R A M D T L K I P Y K Y E H N

SEQ. ID. NO. 45 A M Q A M I R A M D T L K I P Y K Y E H N K A H A  
SEQ. ID. NO. 43 K A H A Q L V R E V D V E K V S A F E N P Y V D A

SEQ. ID. NO. 45 Q L V R E V D V E K V S A F E N P Y V D A I K S L  
SEQ. ID. NO. 43 I K S L W N D P G I Q E C Y D R R R E Y Q L S D S

SEQ. ID. NO. 45 W N D P G I Q E C Y D R R R E Y Q L S D S T K Y Y  
SEQ. ID. NO. 43 T K Y Y L N D L D R V A D P A Y L P T Q Q D V L R

SEQ. ID. NO. 45 L N D L D R V A D P A Y L P T Q Q D V L R V R V P  
SEQ. ID. NO. 43 V R V P T T G I I E Y P F D L Q S V I F R M V D V

SEQ. ID. NO. 45 T T G I I E Y P F D L Q S V I F R M V D V G G Q R  
SEQ. ID. NO. 43 G G Q R S E R R K W I H C F E N V T S I M F L V A

SEQ. ID. NO. 45 S E R R K W I H C F E N V T S I M F L V A L S E Y  
SEQ. ID. NO. 43 L S E Y D Q V L V E S D N E N R M E E S K A L F R

SEQ. ID. NO. 45 D Q V L V E S D N E N R M E E S K A L F R T I I T  
SEQ. ID. NO. 43 T I I T Y P W F Q N S S V I L F L N K K D L L E E

SEQ. ID. NO. 45 Y P W F Q N S S V I L F L N K K D L L E E K I M Y  
SEQ. ID. NO. 43 K I M Y S H L V D Y F P E Y D G P Q R D A Q A A R

SEQ. ID. NO. 45 S H L V D Y F P E Y D G P Q R D A Q A A R E F I L  
SEQ. ID. NO. 43 E F I L K M F V D L N P D S D K I N Y S H F T C A

Figure 14d

SEQ. ID. NO. 45 K M F V D L N P D S D K I I Y S H F T C A T D T E  
SEQ. ID. NO. 43 T D T E N I R F V F A A V K D T I L Q L N L K G C

SEQ. ID. NO. 45 N I R F V F A A V K D T I L Q L N L K G C G L Y  
SEQ. ID. NO. 43 G L Y

Figure 14e

mGluR8//CaR\*Gqi5

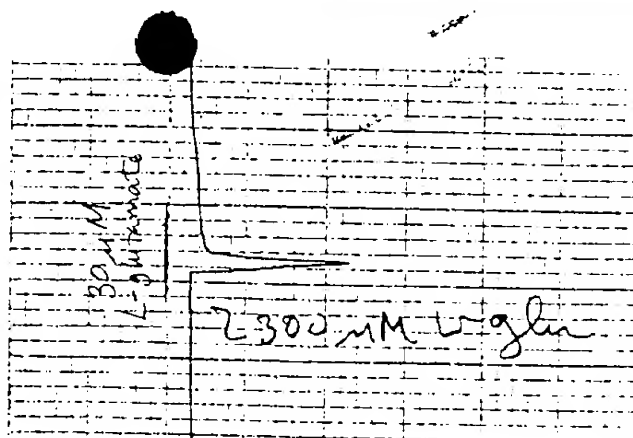
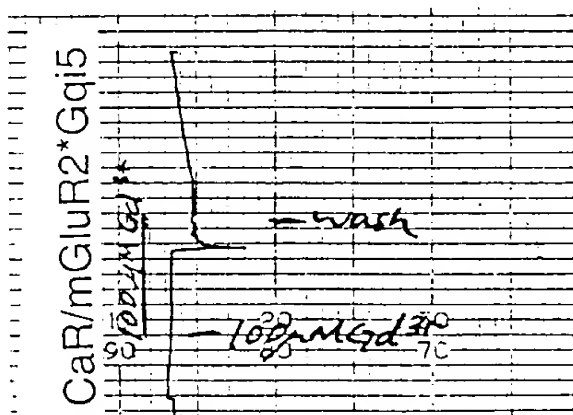


Figure 15



mGluR2//CaR\*Gqi5

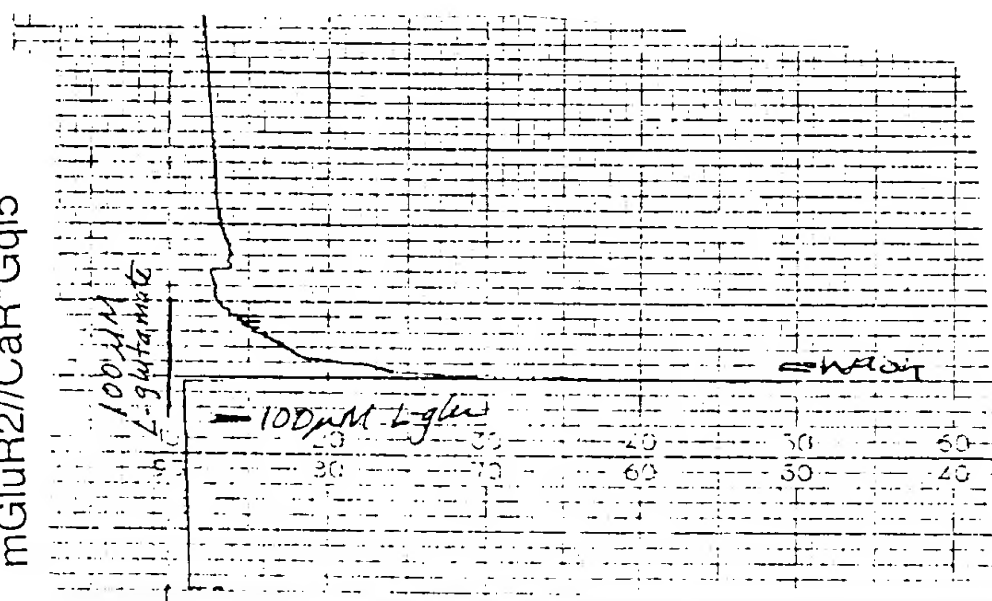


FIGURE 16A

SEQ. ID. NO. 48 M V C E G K R S A S C P C F F L L T A K F Y W I L T M M Q R  
 SEQ. ID. NO. 49 M V C E G K R S A S C P C F F L L T A K F Y W I L T M M Q R  
 SEQ. ID. NO. 50 M V C E G K R S A S C P C F F L L T A K F Y W I L T M M Q R

SEQ. ID. NO. 48 T H S Q E Y A H S I R I D G D I T L G G L F P V H G R G S E  
 SEQ. ID. NO. 49 T H S Q E Y A H S I R I D G D I T L G G L F P V H G R G S E  
 SEQ. ID. NO. 50 T H S Q E Y A H S I R V D G D I I L G G L F P V H A K G E R

SEQ. ID. NO. 48 G K P C G E L K K E K G I H R L E A M L F A L D R I N N D P  
 SEQ. ID. NO. 49 G K P C G E L K K E K G I H R L E A M L F A L D R I N N D P  
 SEQ. ID. NO. 50 G V P C G E L K K E K G I H R L E A M L Y A I D Q I N K D P

SEQ. ID. NO. 48 D L L P N I T L G A R I L D T C S R D T H A L E Q S L T F V  
 SEQ. ID. NO. 49 D L L P N I T L G A R I L D T C S R D T H A L E Q S L T F V  
 SEQ. ID. NO. 50 D L L S N I T L G V R I L D T C S R D T Y A L E Q S L T F V

SEQ. ID. NO. 48 Q A L I E K D G T E V R C G S G G P P I I T K P E R V V G V  
 SEQ. ID. NO. 49 Q A L I E K D G T E V R C G S G G P P I I T K P E R V V G V  
 SEQ. ID. NO. 50 Q A L I E K D A S D V K C A N G D P P I F T K P D K I S G V

SEQ. ID. NO. 48 I G A S G S S V S I M V A N I L R L F K I P Q I S Y A S T A  
 SEQ. ID. NO. 49 I G A S G S S V S I M V A N I L R L F K I P Q I S Y A S T A  
 SEQ. ID. NO. 50 I G A A A S S V S I M V A N I L R L F K I P Q I S Y A S T A

SEQ. ID. NO. 48 P D L S D N S R Y D F F S R V V P S D T Y Q A Q A M V D I V  
 SEQ. ID. NO. 49 P D L S D N S R Y D F F S R V V P S D T Y Q A Q A M V D I V  
 SEQ. ID. NO. 50 P E L S D N T R Y D F F S R V V P P D S Y Q A Q A M V D I V

SEQ. ID. NO. 48 R A L K W N Y V S T V A S E G S Y G E S G V E A F I Q K S R  
 SEQ. ID. NO. 49 R A L K W N Y V S T V A S E G S Y G E S G V E A F I Q K S R  
 SEQ. ID. NO. 50 T A L G W N Y V S T L A S E G N Y G E S G V E A F T Q I S R

SEQ. ID. NO. 48 E D G G V C I A Q S V K I P R E P K A G E F D K I I R R L L  
 SEQ. ID. NO. 49 E D G G V C I A Q S V K I P R E P K A G E F D K I I R R L L  
 SEQ. ID. NO. 50 E I G G V C I A Q S Q K I P R E P R P G E F E K I I K R L L



FIGURE 16B

SEQ. ID. NO. 48 E T S N A R A V I I F A N E D D I R R V L E A A R R A N Q T  
 SEQ. ID. NO. 49 E T S N A R A V I I F A N E D D I R R V L E A A R R A N Q T  
 SEQ. ID. NO. 50 E T P N A R A V I M F A N E D D I R R I L E A A K K L N Q S

SEQ. ID. NO. 48 G H F F W M G S D S W G S K I A P V L H L E E V A E G A V T  
 SEQ. ID. NO. 49 G H F F W M G S D S W G S K I A P V L H L E E V A E G A V T  
 SEQ. ID. NO. 50 G H F L W I G S D S W G S K I A P V Y Q Q E E I A E G A V T

SEQ. ID. NO. 48 I L P K R M S V R G F D R Y F S S R T L D N N R R N I W F A  
 SEQ. ID. NO. 49 I L P K R M S V R G F D R Y F S S R T L D N N R R N I W F A  
 SEQ. ID. NO. 50 I L P K R A S I D G F D R Y F R S R T L A N N R R N V W F A

SEQ. ID. NO. 48 E F W E D N F H C K L S R H A L K K G S H V K K C T N R E R  
 SEQ. ID. NO. 49 E F W E D N F H C K L S R H A L K K G S H V K K C T N R E R  
 SEQ. ID. NO. 50 E F W E E N F G C K L G S H G K R N - S H I K K C T G L E R

SEQ. ID. NO. 48 I G Q D S A Y E Q E G K V Q F V I D A V Y A M G H A L H A M  
 SEQ. ID. NO. 49 I G Q D S A Y E Q E G K V Q F V I D A V Y A M G H A L H A M  
 SEQ. ID. NO. 50 I A R D S S Y E Q E G K V Q F V I D A V Y S M A Y A L H N M

SEQ. ID. NO. 48 H R D L C P G R V G L C P R M D P V D G T Q L L K Y I R N V  
 SEQ. ID. NO. 49 H R D L C P G R V G L C P R M D P V D G T Q L L K Y I R N V  
 SEQ. ID. NO. 50 H K D L C P G Y I G L C P R M S T I D G K E L L G Y I R A V

SEQ. ID. NO. 48 N F S G I A G N P V T F N E N G D A P G R Y D I Y Q Y Q L R  
 SEQ. ID. NO. 49 N F S G I A G N P V T F N E N G D A P G R Y D I Y Q Y Q L R  
 SEQ. ID. NO. 50 N F N G S A G T P V T F N E N G D A P G R Y D I F Q Y Q I T

SEQ. ID. NO. 48 N D S A E Y K V I G S W T D H L H L R I E R M H W P G S G Q  
 SEQ. ID. NO. 49 N D S A E Y K V I G S W T D H L H L R I E R M H W P G S G Q  
 SEQ. ID. NO. 50 N K S T E Y K V I G H W T N Q L H L K V E D M Q W A H R E H

SEQ. ID. NO. 48 Q L P R S I C S L P C Q P G E R K K T V K G M P C C W H C E  
 SEQ. ID. NO. 49 Q L P R S I C S L P C Q P G E R K K T V K G M P C C W H C E  
 SEQ. ID. NO. 50 T H P A S V C S L P C K P G E R K K T V K G V P C C W H C E

SEQ. ID. NO. 48 P C T G Y Q Y Q V D R Y T C K T C P Y D M R P T E N R T G C  
 SEQ. ID. NO. 49 P C T G Y Q Y Q V D R Y T C K T C P Y D M R P T E N R T G C  
 SEQ. ID. NO. 50 R C E G Y N Y Q V D E L S C E L C P L D Q R P N M N R T G C

FIGURE 16C

SEQ. ID. NO. 48 R P I P I I K L E W G S P W A V L P L F L A V V G I A A T L  
 SEQ. ID. NO. 49 R P I P I I K L E W G S P W A V L P L F L A V V G I A A T L  
 SEQ. ID. NO. 50 Q L I P I I K L E W H S P W A V V P V F V A I L G I I A T T

SEQ. ID. NO. 48 F V V I T F V R Y N D T P I V K A S G R E L S Y V L L A G I  
 SEQ. ID. NO. 49 F V V I T F V R Y N D T P I V K A S G R E L S Y V L L A G I  
 SEQ. ID. NO. 50 F V I V T F V R Y N D T P I V R A S G R E L S Y V L L T G I

SEQ. ID. NO. 48 F L C Y A T T F L M I A E P D L G T C S L R R I F L G L G M  
 SEQ. ID. NO. 49 F L C Y A T T F L M I A E P D L G T C S L R R I F L G L G M  
 SEQ. ID. NO. 50 F L C Y S I T F L M I A A P D T I I C S F R R V F L G L G M

SEQ. ID. NO. 48 S I S Y A A L L T K T N R I Y R I F E Q G K R S V S A P R F  
 SEQ. ID. NO. 49 S I S Y A A L L T K T N R I Y R I F E Q G K R S V S A P R F  
 SEQ. ID. NO. 50 C F S Y A A L L T K T N R I H R I F E Q G K K S V T A P K F

SEQ. ID. NO. 48 I S P A S Q L A I T F S L I S L Q L L G I C V W F V V D P S  
 SEQ. ID. NO. 49 I S P A S Q L A I T F S L I S L Q L L G I C V W F V V D P S  
 SEQ. ID. NO. 50 I S P A S Q L V I T F S L I S V Q L L G V F V W F V V D P P

SEQ. ID. NO. 48 H S V V D F Q D Q R T L D P R F A R G V L K C D I S D L S L  
 SEQ. ID. NO. 49 H S V V D F Q D Q R T L D P R F A R G V L K C D I S D L S L  
 SEQ. ID. NO. 50 H I I I D Y G E Q R T L D P E K A R G V L K C D I S D L S L

SEQ. ID. NO. 48 I C L L G Y S M L L M V T C T V Y A I K T R G V P E T F N E  
 SEQ. ID. NO. 49 I C L L G Y S M L L M V T C T V Y A I K T R G V P E T F N E  
 SEQ. ID. NO. 50 I C S L G Y S I L L M V T C T V Y A I K T R G V P E T F N E

SEQ. ID. NO. 48 A K P I G F T M Y T T C I V W L A F I P I F F G T S Q S A D  
 SEQ. ID. NO. 49 A K P I G F T M Y T T C I V W L A F I P I F F G T S Q S A D  
 SEQ. ID. NO. 50 A K P I G F T M Y T T C I I W L A F I P I F F G T A Q S A E

SEQ. ID. NO. 48 K L Y I Q T T T L T V S V S L S A S V S L G M L Y M P K V Y  
 SEQ. ID. NO. 49 K L Y I Q T T T L T V S V S L S A S V S L G M L Y M P K V Y  
 SEQ. ID. NO. 50 K M Y I Q T T T L T V S M S L S A S V S L G M L Y M P K V Y

SEQ. ID. NO. 48 I I L F H P E Q N V P K R K R S L K A V V T A A T M S N K F  
 SEQ. ID. NO. 49 I I L F H P E Q N T I E E V R C S T A A H A F K V A A R A T  
 SEQ. ID. NO. 50 I I I F H P E Q N T I E E V R C S T A A H A F K V A A R A T

FIGURE 16D

SEQ. ID. NO. 48 T Q K G N F R P N G E A K S E L C E N L E A P A L A T K Q T  
 SEQ. ID. NO. 49 L R R S N V S R K R S S S L G G S T G S T P S S S I S S K S  
 SEQ. ID. NO. 50 L R R S N V S R K R S S S L G G S T G S T P S S S I S S K S

SEQ. ID. NO. 48 Y V T Y T N H A I  
 SEQ. ID. NO. 49 N S E D P F P Q P E R Q K Q Q Q P L A L T Q Q E Q Q Q Q P L  
 SEQ. ID. NO. 50 N S E D P F P Q P E R Q K Q Q Q P L A L T Q Q E Q Q Q Q P L

SEQ. ID. NO. 48  
 SEQ. ID. NO. 49 T L P Q Q Q R S Q Q Q P R C K Q K V I F G S G T V T F S L S  
 SEQ. ID. NO. 50 T L P Q Q Q R S Q Q Q P R C K Q K V I F G S G T V T F S L S

SEQ. ID. NO. 48  
 SEQ. ID. NO. 49 F D E P Q K N A M A H G N S T H Q N S L E A Q K S S D T L T  
 SEQ. ID. NO. 50 F D E P Q K N A M A H G N S T H Q N S L E A Q K S S D T L T

SEQ. ID. NO. 48  
 SEQ. ID. NO. 49 R H Q P L L P L Q C G E T D L D L T V Q E T G L Q G P V G G  
 SEQ. ID. NO. 50 R H Q P L L P L Q C G E T D L D L T V Q E T G L Q G P V G G

SEQ. ID. NO. 48  
 SEQ. ID. NO. 49 D Q R P E V E D P E E L S P A L V V S S S Q S F V I S G G G  
 SEQ. ID. NO. 50 D Q R P E V E D P E E L S P A L V V S S S Q S F V I S G G G

SEQ. ID. NO. 48  
 SEQ. ID. NO. 49 S T V T E N V V N S A A A M T L E S I M A C C L S E E A K E  
 SEQ. ID. NO. 50 S T V T E N V V N S A A A M T L E S I M A C C L S E E A K E

SEQ. ID. NO. 48  
 SEQ. ID. NO. 49 A R R I N D E I E R Q L R R D K R D A R R E L K L L L L G T  
 SEQ. ID. NO. 50 A R R I N D E I E R Q L R R D K R D A R R E L K L L L L G T

SEQ. ID. NO. 48  
 SEQ. ID. NO. 49 G E S G K S T F I K Q M R I I H G S G Y S D E D K R G F T K  
 SEQ. ID. NO. 50 G E S G K S T F I K Q M R I I H G S G Y S D E D K R G F T K

SEQ. ID. NO. 48  
 SEQ. ID. NO. 49 L V Y Q N I F T A M Q A M I R A M D T L K I P Y K Y E H N K  
 SEQ. ID. NO. 50 L V Y Q N I F T A M Q A M I R A M D T L K I P Y K Y E H N K

FIGURE 16E

SEQ. ID. NO. 48  
SEQ. ID. NO. 49 A H A Q L V R E V D V E K V S A F E N P Y V D A I K S L W N  
SEQ. ID. NO. 50 A H A Q L V R E V D V E K V S A F E N P Y V D A I K S L W N

SEQ. ID. NO. 48  
SEQ. ID. NO. 49 D P G I Q E C Y D R R R E Y Q L S D S T K Y Y L N D L D R V  
SEQ. ID. NO. 50 D P G I Q E C Y D R R R E Y Q L S D S T K Y Y L N D L D R V

SEQ. ID. NO. 48  
SEQ. ID. NO. 49 A D P A Y L P T Q Q D V L R V R V P T T G I I E Y P F D L Q  
SEQ. ID. NO. 50 A D P A Y L P T Q Q D V L R V R V P T T G I I E Y P F D L Q

SEQ. ID. NO. 48  
SEQ. ID. NO. 49 S V I F R M V D V G G Q R S E R R K W I H C F E N V T S I M  
SEQ. ID. NO. 50 S V I F R M V D V G G Q R S E R R K W I H C F E N V T S I M

SEQ. ID. NO. 48  
SEQ. ID. NO. 49 F L V A L S E Y D Q V L V E S D N E N R M E E S K A L F R T  
SEQ. ID. NO. 50 F L V A L S E Y D Q V L V E S D N E N R M E E S K A L F R T

SEQ. ID. NO. 48  
SEQ. ID. NO. 49 I I T Y P W F Q N S S V I L F L N K K D L L E E K I M Y S H  
SEQ. ID. NO. 50 I I T Y P W F Q N S S V I L F L N K K D L L E E K I M Y S H

SEQ. ID. NO. 48  
SEQ. ID. NO. 49 L V D Y F P E Y D G P Q R D A Q A A R E F I L K M F V D L N  
SEQ. ID. NO. 50 L V D Y F P E Y D G P Q R D A Q A A R E F I L K M F V D L N

SEQ. ID. NO. 48  
SEQ. ID. NO. 49 P D S D K I I Y S H F T C A T D T E N I R F V F A A V K D T  
SEQ. ID. NO. 50 P D S D K I I Y S H F T C A T D T E N I R F V F A A V K D T

SEQ. ID. NO. 48  
SEQ. ID. NO. 49 I L Q L N L K D C G L F  
SEQ. ID. NO. 50 I L Q L N L K D C G L F